

Regulations to add low-emission field fumigation methods and remove language that now occurs on federal labels
(DPR Regulation No. 15-002)

Attachment 4

A copy of the rulemaking file for this set of amendments to regulations regarding field fumigation methods.

The documents listed below are included in the rulemaking file. Documents that are not part of the submittal to US EPA are so noted.

- Notice of proposed rulemaking
- Text of regulations originally noticed to the public
- Initial statement of reasons
- Economic and fiscal impact statement
- Correspondence with the Department of Finance
- Collaboration with the Office of Environmental Health Hazard Assessment
- Correspondence with the California Department of Food and Agriculture
- Correspondence with the California Department of Industrial Relations
- Correspondence with the University of California
- Statement of mailing notice
- Written comments received during the 45-day comment period
- Public hearing transcript
- Statement of mailing 15-day notice
- Notice of modified text; text of modified regulations
- Written comments received during the second 15-day public comment period
- Updated informative digest
- Final statement of reasons
- Documents relied upon – not part of the submittal

TITLE 3. DEPARTMENT OF PESTICIDE REGULATION
Field Fumigant Use Requirements
DPR Regulation No. 15-002

NOTICE OF PROPOSED REGULATORY ACTION

AND

NOTICE OF PUBLIC HEARING
ON A PROPOSED OZONE STATE IMPLEMENTATION PLAN AMENDMENT
REGARDING PESTICIDE EMISSIONS IN THE SACRAMENTO METRO,
SAN JOAQUIN VALLEY, SOUTH COAST, SOUTHEAST DESERT,
AND VENTURA NONATTAINMENT AREAS

The Department of Pesticide Regulation (DPR) proposes to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. The proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

DPR will conduct a public hearing to accept comments on these amendments that may become part of the ozone state implementation plan (SIP). The federal Clean Air Act requires each state to submit a SIP for achieving and maintaining federal ambient air quality standards for ozone. California's SIP contains an element to reduce pesticidal sources of volatile organic compounds (VOCs). These proposed regulations amend and add to regulations that were previously submitted to the U.S. Environmental Protection Agency (U.S. EPA) to support a pending SIP amendment. Opportunity to comment and the hearing on the proposed regulations as part of the SIP amendment are being provided in conjunction with this rulemaking.

SUBMITTAL OF COMMENTS

Any interested person may present comments in writing about the proposed action to the agency contact person named below. Written comments must be received no later than 5:00 p.m. on September 23, 2015. Comments regarding this proposed action may also be transmitted via e-mail to <dpr15002@cdpr.ca.gov> or by facsimile at 916-324-1491.

A public hearing has been scheduled for the time and place stated below to receive oral or written comments regarding the proposed changes.¹

¹ If you have special accommodation or language needs, please include this in your request for a public hearing. TTY/TDD speech-to-speech users may dial 7-1-1 for the California Relay Service.

DATE: September 22, 2015
TIME: 6:00 p.m.
PLACE: Kern Agricultural Pavilion
3300 E. Belle Terrace
Bakersfield, California 93307

A DPR representative will preside at the hearing. Persons who wish to speak will be asked to register before the hearing. The registration of speakers will be conducted at the location of the hearing from 5:00 p.m. to 6:00 p.m. Generally, registered persons will be heard in the order of their registration. Any other person who wishes to speak at the hearing will be afforded the opportunity to do so after the registered persons have been heard. If the number of registered persons in attendance warrants, the hearing officer may limit the time for each presentation in order to allow everyone wishing to speak the opportunity to be heard. Oral comments presented at a hearing carry no more weight than written comments.

EFFECT ON SMALL BUSINESS

DPR has determined that the proposed regulatory action does affect small businesses.

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

State and federal law mandates that DPR protect human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management.

Before planting, farmers use fumigants to control disease, weeds, and pests in the soil. Fumigants are also used to control pests in structures and harvested commodities. Measured in pounds, fumigants represent approximately 20 percent of all agricultural pesticides used in California. Because fumigants are usually applied at a rate of several hundred pounds an acre and are very volatile, fumigants account for an even higher proportion of VOCs emitted by pesticides. In some areas of the state, up to three-quarters or more of the pesticide VOCs are from fumigants. VOCs can contribute to the formation of ground-level ozone, which is harmful to human health and vegetation when present at high enough concentrations. The federal Clean Air Act requires each state to submit a SIP for achieving and maintaining federal ambient air quality standards for ozone. An ozone NAA is a geographical region in California that does not meet either federal or state ambient air quality standards. U.S. EPA designates NAAs in Title 40, Code of Federal Regulations section 81.305. In 1994, California's Air Resources Board and DPR developed a plan to reduce pesticidal sources of VOCs in five NAAs--Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura--as part of the California SIP to meet the one-hour ozone standard.

DPR adopted regulations to achieve a reduction of pesticide VOC emissions from 1990 levels in the five NAAs. The regulations, in part, focus exclusively on fumigant emissions to achieve reductions from pesticides during the May 1 through October 31 peak ozone season through controls on application methods, and established a process to allow the use of interim field fumigation methods as part of DPR's efforts to reduce VOC emissions and to provide the necessary flexibility for innovations that reduce emissions to occur.

In 2012, U.S. EPA approved updated labels for soil fumigants currently registered to include new requirements for buffer zones and related measures. The revised labels include buffer zone credits for tarpaulins that greatly reduce the emissions of the fumigants in the soil, also known as totally impermeable film (TIF) tarpaulins. On the labels, they are referred to as tarpaulins that have been tested for permeability and determined by U.S. EPA to qualify for at least 60 percent buffer zone reduction credit.

Within the five NAAs during May 1 through October 31, only the fumigation methods specified in sections 6447.3, 6448.1, 6449.1, and 6450.1 are allowed except some of these methods classified as “high-emission” are prohibited in the San Joaquin Valley, Southeast Desert, and Ventura NAAs. As mentioned above, under specific criteria pursuant to 3 CCR 6452, the Director may grant interim approval of fumigation methods that reduce VOC emissions. The interim method approved must be accompanied by scientific documentation showing VOC emissions are not higher than other “low-emission” methods allowed in a NAA. The interim approval expires three years after the date of the approval unless adopted by regulation. If these interim methods are not put into regulation, the benefit of further emission reduction from use of the TIF tarpaulin will not be received. Section 6452 sets different standards by which to evaluate whether a new fumigation method will be allowed: one for the Sacramento Metro and South Coast ozone NAAs; and one for the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs. Sacramento Metro and South Coast have a less stringent standard because no further VOC reductions from pesticides are needed in these ozone NAAs. Both “low-emission” and “high-emission” methods can be used in these two areas. Only “low-emission” methods are allowed in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs during the May-October peak ozone season. The key information is the emission rating (percent of the fumigant applied that is emitted to the air) and the emission rate (emission rating multiplied by the maximum application rate). Either the emission rating or the emission rate can be no greater than the current methods allowed within the ozone NAAs by the regulations. The maximum emission rating allowed in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs for methyl bromide is 48 percent, and for chloropicrin and 1,3-D it is 44 percent.

In the past several years, DPR reviewed several studies that estimated fumigant emissions from applications that used TIF tarpaulins. Except for the type of tarpaulin, fumigations with TIF tarpaulins are identical to other methods specified by DPR’s VOC regulations. DPR determined that the TIF tarpaulin fumigation methods meet the standard for an interim method, and approved interim use of the TIF tarpaulin methods using methyl bromide, chloropicrin, or 1,3-D. DPR defined TIF tarpaulins as those for which labeling assigns a buffer zone credit of 60 percent.

The proposed regulatory action pertains to the following five fumigant active ingredients. Common brand names and/or alternative chemical names are given in parentheses as an aid to identification-- methyl bromide, 1,3-D (Telone, Inline), chloropicrin, metam-sodium (Vapam, Sectagon) , and potassium N-methyldithiocarbamate (also known as metam-potassium [K-Pam]).

DPR proposes to amend sections 6447.3, 6448.1, and 6449.1 to add and revise existing field fumigation methods that may be used in the five ozone NAAs during the May 1 through October 31 time period. The addition of new methods, as well as amending existing methods, would result in no greater emission than any of the fumigant methods currently allowed. Additionally, FAC section 12973 states that use of a pesticide shall not be in conflict with the

label. Since many of the same requirements in DPR's regulations are now included on the fumigant labels it is not necessary to repeat the requirements in regulation. DPR proposes revising the regulations to remove language that is required by the labels. Also, DPR proposes minor clarifying and grammatical changes throughout the proposed regulations.

Adoption of these regulations will provide a benefit to public health and the environment by continuing to reduce VOC emissions in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone NAAs.

During the process of developing these regulations, DPR conducted a search of any similar regulations on this topic and concluded that these proposed regulations are not inconsistent or incompatible with existing state regulations. DPR is the only agency that has the authority to regulate the use of pesticides.

IMPACT ON LOCAL AGENCIES OR SCHOOL DISTRICTS

DPR has determined that the proposed regulatory action does not impose a mandate on local agencies or school districts, nor does it require reimbursement by the state pursuant to Part 7 (commencing with section 17500) of Division 4 of the Government Code, because the regulatory action does not constitute a "new program or higher level of service of an existing program" within the meaning of section 6 of Article XIII of the California Constitution. DPR has also determined that no nondiscretionary costs or savings to local agencies or school districts are expected to result from the proposed regulatory action.

CAC offices will be the local agencies responsible for enforcing the proposed regulations. DPR anticipates that there will be no fiscal impact to these agencies. DPR negotiates an annual work plan with the CACs for enforcement activities.

COSTS OR SAVINGS TO STATE AGENCIES

DPR has determined that no savings or increased costs to any state agency will result from the proposed regulatory action.

EFFECT ON FEDERAL FUNDING TO THE STATE

DPR has determined that no costs or savings in federal funding to the state will result from the proposed action.

EFFECT ON HOUSING COSTS

DPR has made an initial determination that the proposed action will have no effect on housing costs.

SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESSES

DPR has made an initial determination that adoption of this regulation will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

COST IMPACTS ON REPRESENTATIVE PRIVATE PERSONS OR BUSINESSES

DPR has made an initial determination that the adoption of this regulation will not have a significant cost impact on representative private persons or businesses. Providing additional alternative fumigation methods could allow an additional 700 acres (mostly strawberries) to be grown in the Ventura NAA, with the potential of increasing net annual income by \$11 million. However, the new fumigant labels have increased buffer zones to address exposure concerns which have resulted in a decrease in acres fumigated from 23,702 in 2012 to 15,760 in 2013. While the use of TIF tarps would allow 700 more acres to be fumigated without going over the fumigant limit, the new buffer zone restrictions designed to limit exposure may prohibit some or all of that increased acreage allowed by the use of TIF tarps under the interim method now being proposed as an amendment to the VOC regulations.

RESULTS OF THE ECONOMIC IMPACT ANALYSIS

Adoption of these regulations will provide a benefit to public health and the environment by continuing to reduce VOC emissions in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone NAAs.

Impact on the Creation, Elimination, or Expansion of Job/Businesses: DPR has determined it is unlikely the proposed regulatory action will impact the creation or elimination of jobs, the creation of new businesses or the elimination of existing businesses, or the expansion of businesses currently doing business with the State of California.

CONSIDERATION OF ALTERNATIVES

DPR must determine that no reasonable alternative considered by the agency, or that has otherwise been identified and brought to the attention of the agency, would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons or businesses than the proposed regulatory action or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of the law.

As stated above, the interim methods expire three years after the date of approval. If the interim methods are not adopted, the current regulations that prohibit TIF tarpaulins for use with methyl bromide would require growers and applicators to use standard polyethylene tarpaulins, and therefore, further reduction in VOC emissions for each acre fumigated would not be achieved. This is contrary to DPR's goal for VOCs and U.S. EPA's goal for stratospheric ozone depletion. Also, 1,3-D and chloropicrin (and MITC generating products) fumigation methods can currently use TIF tarpaulins but the reductions achieved cannot be applied to meet our SIP requirements.

AUTHORITY

This regulatory action is taken pursuant to the authority vested by Food and Agricultural Code sections 11456, 12976, 12981, 14005, and 14102.

REFERENCE

This regulatory action is to implement, interpret, or make specific Food and Agricultural Code sections 11501, 12981, 14006, and 14102.

AVAILABILITY OF STATEMENT OF REASONS AND TEXT OF PROPOSED REGULATIONS

DPR has prepared an Initial Statement of Reasons and has available the express terms of the proposed action, all of the information upon which the proposal is based, and a rulemaking file. A copy of the Initial Statement of Reasons and the proposed text of the regulation may be obtained from the agency contact person named in this notice. The information upon which DPR relied in preparing this proposal and the rulemaking file are available for review at the address specified below.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After the close of the comment period, DPR may make the regulation permanent if it remains substantially the same as described in the Informative Digest. If DPR does make substantial changes to the regulation, the modified text will be made available for at least 15 days prior to adoption. Requests for the modified text should be addressed to the agency contact person named in this notice. DPR will accept written comments on any changes for 15 days after the modified text is made available.

AGENCY CONTACT

Written comments about the proposed regulatory action; requests for a copy of the Initial Statement of Reasons, and the proposed text of the regulation; and inquiries regarding the rulemaking file may be directed to:

Linda Irokawa-Otani, Regulations Coordinator
Department of Pesticide Regulation
1001 I Street, P.O. Box 4015
Sacramento, California 95812-4015
916-445-3991

Note: In the event the contact person is unavailable, questions on the substance of the proposed regulatory action may be directed to the following person at the same address as noted below:

Pam Wofford, Environmental Program Manager
Environmental Monitoring Branch
916-324-4297

This Notice of Proposed Action, the Initial Statement of Reasons, and the proposed text of the regulation are also available on DPR's Internet Home Page <<http://www.cdpr.ca.gov>>. Upon request, the proposed text can be made available in an alternate form as a disability-related accommodation.

AVAILABILITY OF FINAL STATEMENT OF REASONS

Following its preparation, a copy of the Final Statement of Reasons mandated by Government Code section 11346.9(a) may be obtained from the contact person named above. In addition, the Final Statement of Reasons will be posted on DPR's Internet Home Page and accessed at <<http://www.cdpr.ca.gov>>.

DEPARTMENT OF PESTICIDE REGULATION

Brian R Leary
Director

7-28-2015
Date

TEXT OF PROPOSED REGULATIONS

Current wording is indicated by regular type.
Originally proposed deletions are indicated by ~~strikeout~~.
Originally proposed additions are indicated by underline.

DIVISION 6. PESTICIDES AND PEST CONTROL OPERATIONS CHAPTER 2. PESTICIDE REGULATORY PROGRAM SUBCHAPTER 1. DEFINITION OF TERMS ARTICLE 1. DEFINITIONS FOR DIVISION 6

Amend section 6000 to read:

6000. Definitions.

...

"Handle" means mixing, loading, transferring, applying (including chemigation), or assisting with the application (including flagging) of pesticides, maintaining, servicing, repairing, cleaning, or handling equipment used in these activities that may contain residues, working with opened (including emptied but not rinsed) containers of pesticides, adjusting, repairing, or removing treatment site coverings, incorporating (mechanical or watered-in) pesticides into the soil, entering a treated area during any application or before the inhalation exposure level listed on pesticide product labeling has been reached or greenhouse ventilation criteria have been met, or performing the duties of a crop advisor, including field checking or scouting, making observations of the well-being of the plants, or taking samples during an application or any restricted entry interval or entry restricted period listed on pesticide product labeling or other handling activities specified by the label. Handle does not include ~~local, state, or federal officials performing~~ inspection, sampling, or other similar official duties performed by local, state, or federal officials.

...

"Treated field" means a field that has been treated with a pesticide or had a restricted entry interval or entry restricted period in effect within the last 30 days. A treated field includes associated roads, paths, ditches, borders, and headlands, if the pesticide was also directed to those areas. A treated field does not include areas inadvertently contaminated by drift or over spray.

...

NOTE: Authority cited: Sections 11456, 11502, 12111, 12781, 12976, 12981, 13145, 14001, and 14005, Food and Agricultural Code. Reference: Sections 11401.2, 11408, 11410, 11501, 11701, 11702(b), 11704, 11708(a), 12042(f), 12103, 12971, 12972, 12973, 12980, 12981, 13145, 13146, and 14006, Food and Agricultural Code.

CHAPTER 2. PESTICIDES
SUBCHAPTER 4. RESTRICTED MATERIALS
ARTICLE 4. FIELD FUMIGATION USE REQUIREMENTS

Amend section 6445 to read:

6445. Fumigation-Handling Activities.

For purposes of sections 6447-6447.3, and 6784(b), fumigation-handling activities are limited to employees involved in assisting with covering the tarpaulin at the end of the rows (shoveling); assisting in the overall operation, ensuring proper tarpaulin placement and condition, and changing cylinders (copiloting); operating tractor equipment (driving); supervising the fumigation operation; operating chemigation equipment and assisting in chemigation application and leak repair (chemigating); tarpaulin cutting; tarpaulin or chemigation equipment removal prior to the expiration of the entry restricted ~~entry interval period~~; and other handling activities specified by the label.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, and 14102, Food and Agricultural Code.

Amend section 6447 to read:

6447. Methyl Bromide Field Fumigation - General Requirements.

The provisions of this section and sections 6447.1, 6447.2, 6447.3, and 6784(b) pertain to field soil fumigation using methyl bromide. For purposes of these sections, field soil fumigation does not apply to golf courses, replant of individual vine or tree-sites (tree holes) less than one contiguous acre, raised-tarpaulin nursery fumigations of less than one acre, potting soil, and greenhouses and other similar structures.

(a) In addition to the requirements of section 6428, the operator of the property to be treated shall submit a proposed work site plan to the commissioner for evaluation at least seven days prior to submitting a notice of intent. The proposed work site plan ~~shall~~ must include, but is not limited to, method of application to be used, acreage and identification of each application block to be treated, broadcast equivalent application rate to be used, description of the notification procedure to property operators pursuant to section 6447.1(b), description of any activities within the buffer zone(s) as specified in section 6447.2(~~ec~~) and (~~fd~~), description of any workday/work hour limitations as specified in section 6784(b)(3) and respiratory protection ~~as specified in sections 6784(b)(2)(C) and (b)(3) and on the label~~, and if applicable, description of the tarpaulin repair response plan, ~~and tarpaulin removal~~. The commissioner shall retain the proposed worksite plan for one year after the expiration of the permit.

(b) The commissioner, pursuant to section 6432, shall evaluate local conditions and the proposed work site plan.

(c) The commissioner shall include at least the following when conditioning a permit: the buffer zone requirements, work-hour restrictions, notification requirements, any other restrictions to address local conditions, and if applicable, description of the tarpaulin repair response plan ~~and tarpaulin removal~~. The commissioner shall complete the evaluation and complete conditioning the permit prior to the submission of the notice of intent.

(d) An application block ~~shall~~ must not exceed 40 acres unless approved by the Director.

(e) Except for experimental research purposes pursuant to a valid research authorization issued according to section 6260, or a reduced volatile organic compound emission fumigation method approved pursuant to section 6452, tarpaulins ~~shall~~ must have a permeability factor of ~~no less than 5 and~~ no more than 8 milliliters methyl bromide per hour, per square meter, per 1,000 parts per million of methyl bromide under the tarpaulin at 30 degrees Celsius, and be approved by the Department. This includes tarpaulins that have been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit. The use of this tarpaulin will not allow the reduction of buffer zone distances specified on the label. A list of approved tarpaulins is available from the Department.

(f) Tarpaulins ~~shall~~ must be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins ~~shall~~ must remain in place for the time specified in section 6447.3.

~~(g) Fumigation equipment shall be operated to eliminate pesticide drip by clearing the fumigant from the injection device before it is lifted or removed from the soil.~~

~~(hg)~~ County agricultural commissioners shall ensure that agricultural use of methyl bromide does not exceed 171,625 pounds in a township in a calendar month. County agricultural commissioners shall deny any permit or notice of intent that would cause the 171,625 pound limit to be exceeded.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6447.2 to read:

6447.2. Methyl Bromide Field Fumigation Buffer Zone Requirements.

(a) The commissioner shall set buffer zone sizes and durations based upon local conditions. The commissioner may not allow a buffer zone that is smaller or a duration that is less in permit conditions than those ~~in Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, hereby incorporated by reference specified on the label.~~

~~(b) The operator of the property to be treated shall assure that all buffer zone distances are measured from the perimeter of the application block.~~

~~(c) The buffer zone restrictions shall begin at the start of fumigation. The buffer zone restrictions shall remain in effect for at least 36 hours after the completion of the injection to the application block.~~

~~(db)~~ Two buffer zones, an inner and outer for each application block, shall be approved by the commissioner after the proposed worksite plan is submitted.

~~(ec)~~ Inner Buffer Zone Restrictions.

(1) The inner buffer zone ~~shall~~ must be at least 30 feet.

(2) The operator of the property to be treated shall assure that no persons are allowed within the inner buffer zone except to transit on public and private roadways by vehicles or bicycles; ~~and or to perform fumigation-handling activities.~~

(3) The inner buffer zone ~~shall~~ must not extend into adjoining property except as provided below:

(A) The inner buffer zone may extend into adjoining agricultural property if the adjoining property operator gives written permission and allows the operator of the property to be treated to post the inner buffer zone boundary on the adjoining property with signs. If such written permission is given, the operator of the property to be treated shall assure that:

1. the inner buffer zone boundaries on the adjoining property are posted with signs while the buffer zone is in effect; and
2. the signs are posted with wording criteria in accordance with the label; so that the wording is clearly visible, to persons with normal vision, from a distance of 25 feet and shall contain the following words: "METHYL BROMIDE INNER BUFFER ZONE" and "KEEP OUT" and "NO ENTRE"; and
3. the signs are posted at intervals not exceeding 200 feet.

(B) With approval from the commissioner, the inner buffer zone may extend across sites only where transit activities may occur, including streets, roads, roads within agricultural property, and highways, and other similar sites of travel. Written permission and posting requirements in 6447.2 (ec)(3)(A) shall not apply.

(fd) Outer Buffer Zone Restrictions.

(1) The outer buffer zone ~~shall~~ must be at least 60 feet.

(2) The operator of the property to be treated shall assure that no persons are allowed within the outer buffer zone except to transit on public and private roadways by vehicles or bicycles, perform fumigation-handling activities, and commissioner-approved activities as identified in the restricted materials permit conditions. In no instance shall persons be allowed within the outer buffer zone for more than 12 hours in a 24-hour period.

(3) The outer buffer zone may extend into other properties with written permission from the operators of these other properties. In no instances shall the outer buffer zone contain occupied residences or buildings, or occupied onsite employee housing while the outer buffer zone is in effect. The outer buffer zone ~~shall~~ must not extend into properties that contain schools, convalescent homes, hospitals, or other similar sites determined by the commissioner.

(4) The outer buffer zone may extend across roads, highways, ~~or similar sites of travel~~ or sites approved by the commissioner.

(ge) The operator of the property to be treated shall assure that the operator of the other properties specified in (ec)(3)(A) and (fd)(3) above, notify the following persons that a buffer zone(s) has been established on the property: onsite employees, including those of a licensed pest control business or farm labor contractor. The notice to employees ~~shall~~ must be given prior to the commencement of the employee's work activity. Notification to farm labor contractor employees may be done by giving written notice to the farm labor contractor who shall then give the notice to the employee. Employee notification ~~shall~~ must be in a manner the employee can understand, and include information required in section 6447.1(b)(2).

(hf) The operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to the other property operator, if the operator of the other property is required to notify his/her employees as specified in (ge). This specific fumigation notification ~~shall~~ must be provided to the other property operator at least 48 hours prior to starting the fumigation. If the fumigation of an application block does not commence within the time frame specified in 6447.1(a)(2), then a new notification must be provided to the other property operator specified in (ec)(3)(A) and (fd)(3), but the 48-hour requirement shall not apply unless required by the commissioner.

(ig) ~~When No fumigant application with an outer buffer zone greater than 300 feet is permitted within ¼ mile of a school property is within 300 feet of the perimeter of the outer buffer zone, the injection shall be completed no~~ unless the school is scheduled to be unoccupied during the application period and for less than 36 hours thereafter, prior to the start of a school session. School session shall be those times when students are attending scheduled classes.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6447.3 to read:

6447.3. Methyl Bromide Field Fumigation Methods.

(a) The methyl bromide field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, the following methods are prohibited during the May 1 through October 31 time period: (1), (2), (4), and (6); and if applied as alternating fumigated and unfumigated areas (strip fumigation), methods (3) and (5). In addition to labeling requirements for each of these methods, the following requirements shall apply:

- (1) ~~Nontarpaulin/Shallow/Bed~~ (Reserved)
 - ~~(A) Application rate shall not exceed 200 pounds of methyl bromide per acre.~~
 - ~~(B) The application tractor shall be equipped with an air fan dilution system.~~
 - ~~(C) Rearward curved (swept back) chisels shall be used with:~~
 - 1. closing shoes and bed shaper, or closing shoes and compaction roller; and
 - 2. chisel injection points positioned beneath and ahead of the closing shoes.
 - ~~(D) Injection depth shall be between 10 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.~~
 - ~~(E) Injection spacing shall be 40 inches or less.~~
 - ~~(F) The soil shall not be disturbed for at least three days (72 hours) following completion of injection to the application block.~~
 - ~~(G) The application block restricted entry interval shall be three days.~~
- (2) Nontarpaulin/Deep/Broadcast
 - (A) Broadcast equivalent Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.
 - (B) Forward-curved chisel ~~shall~~ must be used with:
 - 1. An application tractor equipped with an air fan dilution system, and the injection depth ~~shall~~ must be at least 20 inches; or
 - 2. Closing shoes and compaction roller and the injection depth ~~shall~~ must be at least 24 inches.
 - (C) Injection spacing ~~shall~~ must be 68 inches or less.
 - (D) The soil ~~shall~~ must not be disturbed for at least four days (96 hours) following completion of injection to the application block.
 - ~~(E) The application block restricted entry interval shall be four days.~~
- (3) Tarpaulin/Shallow/Broadcast
 - (A) Broadcast equivalent Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.
 - (B) Application ~~shall~~ must be made using ~~either:~~
 - 1. ~~A~~an application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant ~~shall~~ must be injected laterally beneath the soil surface; ~~or~~
 - 2. ~~Rearward curved (swept back) chisels, closing shoes, and compaction roller shall be used.~~
 - (C) Injection depth ~~shall~~ must be at least 10 and no greater than 15 inches.
 - (D) Injection spacing ~~shall~~ must be 12 inches or less.

(E) The tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) ~~The tarpaulin shall not be cut until a minimum of five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(4).~~

(G) Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.

~~(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least six days.~~

(4) Tarpaulin/Shallow/Bed

(A) Broadcast equivalent Application rate ~~shall~~ must not exceed 250 pounds of methyl bromide per acre.

(B) Rearward-curved (swept-back) chisels ~~shall~~ must be used with either:

1. Closing shoes and compaction roller. The closing shoes ~~shall~~ must cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

2. Bed shaper. The chisels ~~shall~~ must be placed with the injection point under the bed shaper, and the tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

3. Combination bed former and bed shaper. The chisels ~~shall~~ must be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment ~~shall~~ must immediately follow the application tractor.

(C) Injection depth shall be between 6 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.

(D) Injection spacing ~~shall~~ must be 12 inches or less.

~~(E) The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.~~

(F) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. ~~The application block restricted entry interval shall end at completion of tarpaulin removal, and shall~~ entry restricted period must be at least six days, ~~or 10 days if using tarpaulin described in (E).~~

(G) If tarpaulins are not to be removed before planting, the application block entry restricted-entry interval period shall must either:

1. consist of the five-day period ~~described in subsection (E)~~ plus an additional 48 hours after holes have been cut for planting ~~if using a tarpaulin not described in subsection (E), or~~

2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (E), or

3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than five parts per million before planting begins.

(5) Tarpaulin/Deep/Broadcast

(A) ~~Broadcast equivalent~~ Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisels ~~shall~~ must be used with either:

1. An air fan dilution system on the application tractor; or
2. Closing shoes and compaction roller.

(C) Injection depth ~~shall~~ must be at least 20 inches.

(D) Injection spacing ~~shall~~ must be 66 inches or less.

(E) The tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) ~~The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(4)~~

(G) Tarpaulin removal ~~shall~~ must begin no sooner than 24 hours after tarpaulin cutting has been completed.

~~(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least six days.~~

(6) Drip System - Hot Gas

A hot gas application through a subsurface drip irrigation system to tarpaulin-covered beds may be used if all of the following criteria are met:

(A) ~~Broadcast equivalent~~ Application rate ~~shall~~ must not exceed 225 pounds of methyl bromide per acre.

(B) The fumigant ~~shall~~ must be injected beneath the soil surface at a minimum depth of one inch.

(C) The portion of the drip system used in the fumigation ~~shall~~ must be physically disconnected from the main water supply during the fumigation to prevent possible contamination of the water supply.

(D) All fittings and emitters underneath the tarpaulin ~~shall~~ must be buried in the soil to a minimum depth of one inch.

(E) Prior to the start of the fumigation, all drip tubing ~~shall~~ must be checked for blockage, and the irrigation system connections and fittings checked for blockage and leaks using pressurized air and/or water. The end of each drip tubing ~~shall~~ must be placed under the tarpaulin prior to introduction of fumigant.

(F) The tarpaulin ~~shall~~ must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments ~~shall~~ must be made before the fumigation begins.

(G) Prior to the start of the fumigation, all fittings above ground and outside of the tarpaulin ~~shall~~ must be pressure-tested with compressed air, water, or nitrogen gas to a maximum pressure of 50 pounds per square inch. A soap solution ~~shall~~ must be used to check the fittings for leaks if using air or nitrogen. All apparent leaks ~~shall~~ must be eliminated prior to the fumigation. All drip tubing with emitters connected to the distribution manifold not covered by the tarpaulin ~~shall~~ must be sealed to prevent fumigant loss through the emitters.

(H) Prior to introducing the fumigant, the drip system ~~shall~~ must be purged of water by means of pressurized gas, such as CO₂ or nitrogen.

(I) The drip system ~~shall~~ must be purged prior to disconnecting any line containing the fumigant.

(J) After purging, drip tubing ~~shall~~ must be pinched off and then disconnected from the distribution manifold. All disconnected tubing leading into the treated field ~~shall~~ must be secured to prevent gas from escaping.

(K) All fittings used for connecting or disconnecting the heat exchanger to the irrigation system manifold ~~shall~~ must be of a positive shut-off design.

(L) All persons ~~shall~~ must wear the eye protection specified on the label when working with a manifold system or tubing containing the fumigant under pressure.

(M) The entire fumigation system (heater, valves, and manifold) ~~shall~~ must be purged of the fumigant at the end of each day's fumigation.

(N) ~~The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.~~

(O) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. ~~The application block restricted entry interval shall end at completion of tarpaulin removal and shall~~ entry restricted period must be at least six days, ~~or 10 days if when using tarpaulin described in (N).~~

(P) If tarpaulins are not to be removed before planting, the application block entry restricted-entry interval period shall must either:

1. consist of the five-day period ~~described in subsection (N)~~ plus an additional 48 hours after holes have been cut for planting, ~~if using a tarpaulin not described in subsection (N), or~~

2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (N), or

3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than five parts per million before planting begins.

(b) Notwithstanding section 6770, the operator of the property shall assure that only persons performing fumigation-handling activities are allowed in an application block before the entry restricted entry interval period expires. Persons performing activities other than tarpaulin cutting, removal, and repair described in sections 6784(b)(3), ~~(4)~~, and (5) shall wear a full-face respirator that meets the requirements ~~of section 6784(b)(2)(C)~~ specified on the label.

(c) Notwithstanding subsection (a), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6448.1 to read:

6448.1. 1,3-Dichloropropene Field Fumigation Methods.

(a) Broadcast equivalent ~~A~~ application rate must not exceed 332 pounds of 1,3-Dichloropropene active ingredient per acre.

~~(b) If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) — at least enough moisture so that the soil is pliable, not crumbly.~~

(eb) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils - a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils - a minimum of 0.30 inches of water per acre.

(3) fine texture soils - a minimum of 0.20 inches of water per acre.

(c) If an application is made alternating fumigated and unfumigated areas (strip fumigation), the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(d) The 1,3-Dichloropropene field soil fumigation must be made using only the methods described in this section. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1) is prohibited; method (2) is are-prohibited unless applied as a broadcast fumigation using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit; and method (5) is prohibited when 1,3-Dichloropropene is used in combination with chloropicrin unless applied as alternating fumigated and unfumigated areas (strip fumigation). In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Nontarpaulin/Shallow/Broadcast or Bed

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B)~~ Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(2) Tarpaulin/Shallow/Broadcast or Bed

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(3) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B)~~ Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

~~(C)~~ Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (eb):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Tarpaulin/Shallow/Bed/Three Post-Fumigation Water Treatment

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches.~~

~~(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.~~

~~(D) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. Tarpaulin removal must not begin sooner than 24 hours after tarpaulin cutting has been completed.~~

(D) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (e):

1. Water must be applied by an irrigation method that uniformly covers the untarped area in the entire application block.

2. On the day of fumigation, the first water treatment to the untarped areas must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment to the untarped areas must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment to the untarped areas must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(5) Nontarpaulin/Deep/Broadcast ~~or Bed~~

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(6) Tarpaulin/Deep/Broadcast ~~or Bed~~

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(7) Chemigation (Drip System)/Tarpaulin

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape,

and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) The tarpaulin ~~shall~~ must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments ~~shall~~ must be made before the chemigation begins.

(C) Ends of drip tape not covered by tarpaulin must be covered by at least two inches of soil.

(D) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(e) Tarpaulin Repair.

(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan ~~shall~~ must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan ~~shall~~ must indicate the parties responsible for the repair and incorporate the applicable elements listed in (2) below.

(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(f) Notwithstanding subsection (d), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6449.1 to read:

6449.1. Chloropicrin Field Fumigation Methods.

~~(a) Application rate must not exceed 400 pounds of chloropicrin per acre.~~

~~(b)~~ For products containing chloropicrin as the sole active ingredient, the field soil fumigation must be made using only the methods described in section 6447.3 or 6448.1. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas the methods described in the following sections are prohibited:

(1) 6447.3(a)(1),(2), ~~(4)~~, and (6); and 6448.1(d)(1) and (5);

(2) 6448.1(d)(5), unless applied as alternating fumigated and unfumigated areas (strip fumigation); and

(3) 6447.3 (a)(4), 6447.3(a)(3) and (5) if applied as alternating fumigated and unfumigated areas (strip fumigation), ~~methods 6447.3(a)(3) and (5); 6448.1(d)(1) and (5); and 6448.1(d)(2) if applied as a bed fumigation, 6448.1(d)(2) unless a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit is used.~~

(c) ~~If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) — at least enough moisture so that the soil is pliable, not crumbly.~~

(b) If an application is made alternating fumigated and unfumigated areas (strip fumigation), the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(d) Tarpaulin Repair.

~~(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan shall identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan shall indicate the parties responsible for the repair and incorporate the applicable elements described in (2) below.~~

~~(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.~~

(ec) Notwithstanding subsection (ba), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6450.1 to read:

6450.1. Metam-Sodium and Potassium N-methyldithiocarbamate (Metam-Potassium) Field Fumigation Methods.

(a) Application rate must not exceed 320 pounds active ingredient per acre for metam-sodium. Broadcast equivalent Application rate must not exceed 350 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

~~(b) Except for the method described in subsection (e)(9), if there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam, and clay) at least enough moisture so that the soil is pliable, not crumbly.~~

(eb) Fumigations must start no earlier than one hour after sunrise and must be completed no later than one hour before sunset except for the method described in subsection (ed)(9), (10), and (11).

(ec) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils - a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils - a minimum of 0.30 inches of water per acre.

(3) fine texture soils - a minimum of 0.20 inches of water per acre.

(ed) The metam-sodium or potassium N-methyldithiocarbamate (metam-potassium) field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1), (4), and (9) are prohibited. In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Sprinkler/Broadcast or Bed/One Post-Fumigation Water Treatment

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatment below and meet the requirements in subsection (ec):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, one post-fumigation water treatment must begin within 30 minutes of the completion of fumigation.

3. Any additional post-fumigation water treatment(s) may be applied at any time.

(2) Sprinkler/Broadcast or Bed/Two Post-Fumigation Water Treatments

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (ed):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(3) Sprinkler/Broadcast or Bed/Three Post-Fumigation Water Treatments

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below:

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment, be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Nontarpaulin/Shallow/Broadcast or Bed/One Post-Fumigation Water Treatment

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(1)(A).

(5) Nontarpaulin/Shallow/Broadcast or Bed /Two Post-Fumigation Water Treatments

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(6) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(3)(A).

(7) Chemigation (Drip System)

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(8) Rotary Tiller/Power Mulcher/Soil Capping

(A) Application equipment must be followed immediately by soil compaction equipment.

(9) Flood

(A) The fumigant must be applied with at least four inches of water per acre.

(10) 1:00 AM Start/Nontarpaulin/Shallow/Broadcast/Two Post-Fumigation Water Treatments

(A) The fumigation application must start no earlier than 1:00 a.m.

(B) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(C) The following application equipment and procedures must be used:

~~1. No more than 24 hours before application, thoroughly cultivate the field to remove clods with a disc or spring tooth bar. Soil must contain at least enough moisture pursuant to subsection (b).~~

21. The application equipment must meet the following criteria:

i. The shanks must be set on three application tool bars, with the bars spaced 12 to 16 inches apart from front to back. The shanks must be staggered on each tool bar to produce a final overall shank spacing of 9 to 11 inches.

ii. Injection depth on each shank must be 3 to 4 inches, 6 to 7 inches, and 9 to 10 inches.

iii. Nitrogen must be used to purge the system before applicator bar is lifted out of the ground at any time.

iv. The application tool bars must be followed by a ring roller that is at least as wide as the application tool bars, with four gauge wheels controlled by hydraulic cylinders to control depth and/or pressure; or with a coil packer that is at least as wide as the application tool bars.

(11) 4:00 AM/ Start/Sprinkler/Broadcast or Bed/Two Post-Fumigation Water Treatments

(A) Notwithstanding (a), in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas the broadcast equivalent application rate must not exceed 260 pounds active ingredient per acre for metam-sodium or 290 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

(B) Fumigation must start no earlier than 4:00 a.m.

(C) Fumigation must be completed in compliance with post-fumigation water treatments pursuant to (ed)(2)(A).

(12) Drench

(A) Notwithstanding (a), in the Sacramento Metro and South Coast ozone nonattainment areas, broadcast equivalent application rate must not exceed 246 pounds active ingredient per acre for metam-sodium or 270 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium). In the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, broadcast equivalent application rate must not exceed 90 pounds active ingredient per acre for metam-sodium or 98 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

(B) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(~~f~~e) Notwithstanding subsection (ed), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6452 to read:

6452. Reduced Volatile Organic Compound Emissions Field Fumigation Methods.

(a) For the Sacramento Metro and South Coast ozone nonattainment areas, the Director may approve use of a field fumigation method not described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1 if the request is accompanied by scientific data documenting the volatile organic compound (VOC) emissions. The emission rating specified in section 6881 or the maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) must be no greater than any one of the methods for the same fumigant described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1.

(b) For the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, upon written request, the Director may approve use of a field fumigation method either not described or excluded from use in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1 if the request meets the following criteria:

(1) The request is accompanied by scientific data documenting the VOC emissions;

(A) The emission rating, as specified in section 6452.4, is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1, or

(B) The maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1.

(c) Criteria the Director shall consider includes whether:

(1) the data and information provided are sufficient to estimate emissions;

(2) the results are valid as indicated by the quality control data; and

(3) the conditions studied represent agricultural fields fumigated.

(d) The Director shall publish a notice of interim approval for a field fumigation method on the Department's Web site. The interim approval expires three years after the date of approval.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 14006, and 14102.

Amend section 6452.2 to read:

6452.2 Volatile Organic Compound Emission Limits.

(a) The Director shall establish field fumigant volatile organic compound (VOC) emission limits in the Annual Volatile Organic Compound Emissions Inventory Report issued pursuant to section 6881 for the Sacramento Metro, South Coast, Southeast Desert, and Ventura ozone nonattainment areas where the difference between emissions in the most recent inventory report and the benchmarks for that area is five percent or less of the benchmarks or exceeds the benchmarks listed below during the May 1 through October 31 time period:

Ozone Nonattainment Area	Total Agricultural and Structural VOC Emissions Inventory Benchmarks from May 1 to October 31
Sacramento Metro	820,000 lbs. (2.2 tons/day average)
South Coast	3,200,000 lbs. (8.7 tons/day average)
Southeast Desert	340,000 lbs. (0.92 tons/day average)
Ventura	1,100,000 lbs. (3.0 tons/day average)

(1) If a VOC emission limit is in effect pursuant to (a) that limit must remain in effect until the commissioner does not condition permits to include a fumigant emission allowance specified in (c)(1) or (d)(1), and does not deny any permit or notice of intent specified in (c)(2) or (d)(2) in order to comply with the fumigant emission limit for two consecutive years.

(b) The Director shall calculate the field fumigant VOC emission limits specified in (a) by subtracting the nonfumigant pesticide VOC emissions from the total agricultural and structural VOC emissions inventory benchmarks. Nonfumigant pesticide product emissions will be the summation of the pounds of each pesticide product used multiplied by the VOC content (emission potential) for the specific product.

(c) For the Ventura ozone nonattainment area, the commissioner shall ensure that the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period using one or more of the following methods for field soil fumigations:

- (1) Condition permit to include fumigant emission allowances.
- (2) Deny any permit or notice of intent that would cause the fumigant limit to be exceeded.
- (3) Condition permit to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(ed), 6449.1(ba), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(d) For ozone nonattainment areas other than Ventura, the Director shall select one or more of the following methods to ensure the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period:

(1) The Director establishes a fumigant emission allowance for each permittee, based on information provided the commissioners within the ozone nonattainment area. The total allowances in each ozone nonattainment area must not exceed the fumigant limit established for that area. Commissioners shall issue permits or amend existing permits to comply with the fumigant emission allowance(s) established by the Director. Commissioners shall deny any notice of intent that does not comply with the permittees' fumigant emission allowances.

(2) Commissioners deny any permit or notice of intent that would cause the fumigant limit to be exceeded.

(3) Commissioners condition permits to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(ed), 6449.1(ba), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(e) No person may apply a field fumigant during the May 1 through October 31 time period in an ozone nonattainment area for which a fumigant emission limit has been established pursuant to (a), unless their restricted material permit includes conditions specified in (c) or (d), or notice of intent is approved in writing.

(f) For the San Joaquin Valley ozone nonattainment area, if the difference between emissions in the most recent emissions inventory report and the 6,700,000 pound (18.1 tons per day) benchmark for this area is five percent or less of the benchmark or exceeds this benchmark during the May 1 through October 31 time period, the provisions of section 6884 shall apply.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.
Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.

CHAPTER 3. PEST CONTROL OPERATIONS

SUBCHAPTER 3. PESTICIDE WORKER SAFETY

ARTICLE 4. FUMIGATION

Amend section 6784 to read:

6784. Field Fumigation.

(a) Signs required to be posted in accordance with section 6776(f) shall remain in place until aeration is complete.

(b) The provisions of this subsection pertain to field soil fumigations using methyl bromide applied pursuant to the fumigation methods described in section 6447.3.

(1) Employer Recordkeeping. The employer shall maintain records for all employees performing fumigation-handling activities. The records ~~shall~~ must identify the person, work activity(ies), date(s), duration of handling, the U.S. Environmental Protection Agency Registration Number, and the brand name of the methyl bromide product handled. The employer shall maintain these use records at a central location for two years.

(2) Employee Protection Requirements.

(A) Employees involved primarily in shoveling shall work only at the ends of the application rows.

~~(B) At least two trained employees shall be present during introduction of methyl bromide and removal of tarpaulins, if used.~~

~~(C) When required by this section, employees shall wear National Institute for Occupational Safety and Health (NIOSH) certified respiratory protection specifically recommended by the manufacturer for use in atmospheres containing five parts per million or less methyl bromide. a certified respiratory protection as specified on the label. Employees shall wear the required respiratory protection during the entire duration of the fumigation-handling activity. NIOSH-approved, air-supplying respiratory protection may be used in lieu of chemical cartridge respirators.~~

(3) Limited Work Hours and Workdays.

(A) No employee may work in fumigation-handling activities more than the hours specified in Table 1--Maximum Work Hours during the injection period and during the ~~restricted-entry interval~~entry restricted period.

1. An employee may perform fumigation-handling activities without the work-hour limitations specified in Table 1--Maximum Work Hours if a full-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in Table 1--Maximum Work Hours for any one work task or application method performed.

(B) Notwithstanding subsection (b)(3)(A), an employee may work in fumigation-handling activities in a 24-hour period for the work hours specified in Table 2--Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month during the injection period and during the ~~entry restricted entry interval~~entry restricted period, provided the employee's total workdays performing fumigation-handling activities do not exceed three days in a calendar month.

1. An employee may perform fumigation-handling activities without the work- hour limitations specified in Table 2--Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month if a half-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in Table 2-- Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month for any one work task or application method performed.

Table 1. Maximum Work Hours

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Wearing Half-Face Respirator During Entire Fumigation-Handling Activity
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	8* 8*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	8* 8 ^{1/}
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ²
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	no limitation 6* 6* 10 ^{1/} no limitation ^{2/}
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ^{2/}
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	4* 4* 10 ^{1/} no limitation ^{2/}

^{1/} Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than one hour in a 24-hour period. The maximum one-hour work limitation may be increased in accordance with the formula located below.

^{2/} Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than three hours in a 24-hour period. The maximum three-hour work limitation may be increased in accordance with the formula located below.

* If the actual methyl bromide application rate is less than the maximum application rate shown above in Table 1 or below in Table 2 for the particular fumigation method used, the maximum work hours may be increased in accordance with the following formula:

$$\left(\frac{\text{maximum application rate for method}}{\text{actual application rate}} \right) \times \begin{matrix} \text{maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix} = \begin{matrix} \text{revised maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix}$$

Table 2. Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Without the Use of Respirators
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	4* 4*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	4* 7*
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	4* 4* 4* 4 7
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	2* 2* 4 7

(C) No employee shall be allowed to alternate between the workday and work-hour requirements specified in subsection (b)(3)(A) and (B) unless the employee did not perform fumigation-handling activities during the previous 30 days.

(4) ~~Tarpaulin Cutting and Removal Procedures.~~ (Reserved)

~~(A) Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of gas is readily evident (onset of eye irritation or odor).~~

~~(B) Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods, including all-terrain vehicle or a tractor with a cutting wheel. Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.~~

(5) Tarpaulin Repair.

(A) The operator of the property shall assure that a "tarpaulin repair response plan" is provided to the commissioner. The tarpaulin repair response plan ~~shall~~ must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan ~~shall~~ must indicate the parties responsible for the repair and incorporate the applicable elements listed in (B) below.

(B) The "tarpaulin repair response plan" approved by the commissioner in the work site plan must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(C) The ambient air in the damaged areas of the tarpaulin to be repaired must be tested for methyl bromide concentration by a certified applicator of the licensed pest control business that made the application, or by a certified applicator employee of the permittee, or certified applicator permittee, using a testing device as specified by the labeling. The certified applicator ~~must~~ shall wear self-contained breathing apparatus when conducting these tests.

(D) All repair work areas must test less than five parts per million methyl bromide before any employee without respiratory protection shall be allowed to enter and conduct tarpaulin repair. Such employee is limited to one work hour in a 24-hour period, unless respiratory protection specified in ~~subsection (b)(2)(C)~~ on the label is worn.

NOTE: Authority cited: Sections 11456 and 12981, Food and Agricultural Code. Reference: Section 12981, Food and Agricultural Code.

INITIAL STATEMENT OF REASONS AND PUBLIC REPORT
DEPARTMENT OF PESTICIDE REGULATION

Title 3. California Code of Regulations
Amend Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1,
6449.1, 6450.1, 6452, 6452.2, and 6784
Pertaining to Field Fumigant Use Requirements

This is the Initial Statement of Reasons (ISR) required by Government Code section 11346.2, and the public report specified in section 6110 of Title 3, California Code of Regulations (3 CCR). Section 6110 meets the requirements of Title 14, CCR section 15252, and Public Resources Code section 21080.5 pertaining to certified state regulatory programs under the California Environmental Quality Act.

SUMMARY OF PROPOSED ACTION/PESTICIDE REGULATORY PROGRAM ACTIVITIES
AFFECTED

The Department of Pesticide Regulation (DPR) proposes to amend 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. The pesticide regulatory program activities that will be affected by the proposal are those pertaining to environmental monitoring and pesticide enforcement. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

SPECIFIC PURPOSE AND FACTUAL BASIS

DPR protects human health and the environment by regulating pesticide sales and use, and by fostering reduced-risk pest management. DPR's strict oversight includes: product evaluation and registration; statewide licensing of commercial and private applicators, pest control businesses, dealers, and advisers; environmental monitoring; and residue testing of fresh produce. This statutory scheme is set forth primarily in Food and Agricultural Code (FAC) Divisions 6 and 7.

The proposed regulatory action pertains to some of the most widely used fumigant active ingredients in agriculture in the state: methyl bromide, 1,3-D, chloropicrin, and metam-sodium, and potassium N-methyldithiocarbamate.

Before planting, farmers use fumigants to control disease, weeds, and pests in the soil. Fumigants are also used to control pests in structures and harvested commodities. Measured in pounds, fumigants represent approximately 20 percent of all agricultural pesticides used in California. Because fumigants are usually applied at a rate of several hundred pounds an acre and are very volatile, fumigants account for an even higher proportion of volatile organic compounds (VOCs) emitted by pesticides. In some areas of the state, up to three-quarters or more of the pesticide VOCs are from fumigants.

VOCs can contribute to the formation of ground-level ozone, which is harmful to human health and vegetation when present at high enough concentrations. The federal Clean Air Act requires each state to submit a State Implementation Plan (SIP) for achieving and maintaining federal ambient air quality standards for ozone. An ozone NAA is a geographical region in California that does not meet either federal or state ambient air quality standards. The U.S. Environmental Protection Agency (U.S. EPA) designates NAAs in Title 40, Code of Federal Regulations (CFR) section 81.305. In 1994, California's Air Resources Board (ARB) and DPR developed a plan to reduce pesticidal sources of VOCs in five NAAs--Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura--as part of the California SIP to meet the ozone standard.

In January 2008, DPR adopted regulations (Office of Administrative Law File No. 2007-1219-01S) to achieve a reduction of pesticide VOC emissions from 1991 levels in the five NAAs. Those regulations, in part, focus exclusively on fumigant emissions to achieve reductions from pesticides during the May 1 through October 31 peak ozone season through controls on application methods, and established a process to allow the use of interim field fumigation method as part of DPR's efforts to reduce VOC emissions and to provide the necessary flexibility for innovations that reduce emissions to occur.

On July 18, 2008, U.S. EPA revised California's SIP to allow an additional 1.3 tons per day (tpd) of VOCs from pesticides in Ventura in 2008. (73 Federal Register 41277, 41278.) That SIP revision required a portion of the additional 1.3 tons of emission allowed in 2008 to be reduced each year thereafter until the total 20 percent reduction was reached in Ventura in 2012. In September 2008, DPR amended the regulations (Office of Administrative Law File No. 2008-0828-01S) to make it consistent with the phase-in of 1.3 tpd reduction requirement in Ventura approved by U.S. EPA.

In 2009, ARB submitted a revised SIP to U.S. EPA for the San Joaquin Valley that included a pesticide VOC emissions limit of 18.1 average tpd, reflecting the 12 percent reduction from 1990 levels required by the SIP. The proposed SIP revision also includes a commitment to implement restrictions adopted by DPR in 2013 (Office of Administrative Law File No. 2013-0419-01S) that reduce VOC emissions from nonfumigant pesticides by 2014. That submission has not yet been approved by U.S. EPA.

Pesticides must be registered (licensed for sale and use) with U.S. EPA before they can be registered in California. DPR's preregistration evaluation is in addition to, and complements, U.S. EPA's evaluation. Before a pesticide can be sold or used, both agencies require data on a product's toxicology and chemistry--how it behaves in the environment; its effectiveness against targeted pests, and the hazards it poses to nontarget organisms; its effect on fish and wildlife; and its degree of worker exposure.

In 2012, U.S. EPA approved updated labels for soil fumigants currently registered to include new requirements for buffer zones and related measures. The revised labels include buffer zone credits for tarpaulins that greatly reduce the emissions of the fumigants in the soil, also known as totally impermeable film (TIF) tarpaulins. On the labels, they are referred to as tarpaulins that have been tested for permeability and determined by U.S. EPA to qualify for at least 60 percent buffer zone reduction credit.

Within the five NAAs during May 1 through October 31, only the fumigation methods specified in sections 6447.3, 6448.1, 6449.1, and 6450.1 are allowed except some of these methods classified as "high-emission" are prohibited in the San Joaquin Valley, Southeast Desert, and Ventura NAAs. As mentioned above, under specific criteria pursuant to 3 CCR 6452, the Director may grant interim approval of fumigation methods that reduce VOC emissions. The interim method approved must be accompanied by scientific documentation showing VOC emissions are not higher than other "low-emission" methods allowed in a NAA. The interim approval expires three years after the date of the approval unless adopted by regulation. Section 6452 sets different standards by which to evaluate whether a new fumigation method will be allowed: one for the Sacramento Metro and South Coast ozone NAAs; and one for the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs. Sacramento Metro and South Coast have a less stringent standard because no further VOC reductions from pesticides are needed in these ozone NAAs. Both "low-emission" and "high-emission" methods can be used in these two areas. Only "low-emission" methods are allowed in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs during the May-October peak ozone season. The key information is the emission rating (percent of the fumigant applied that is emitted to the air) and the emission rate (emission rating multiplied by the maximum application rate). Either the emission rating or the emission rate can be no greater than the current methods allowed within the ozone NAAs by the regulations. The maximum emission rating allowed in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs for methyl bromide is 48 percent, and for chloropicrin and 1,3-D it is 44 percent.

In the past several years, DPR reviewed several studies that estimated fumigant emissions from applications that used TIF tarpaulins. Except for the type of tarpaulin, fumigations with TIF tarpaulins are identical to other methods specified by DPR's VOC regulations. DPR determined that the TIF tarpaulin fumigation methods meet the standard for an interim method, and in 2013 and 2014, approved interim use of the TIF tarpaulin methods using methyl bromide, chloropicrin, or 1,3-D. The Director's decisions to approve these methods, based upon supporting documentation, are included in the rulemaking file as "Documents Relied Upon." DPR defined TIF tarpaulins as those for which labeling assigns a buffer zone reduction credit of 60 percent.

Some of the available TIF data supported designation as "low-emission" fumigation methods, but the data were insufficient for other methods. DPR assigned TIF the same application method adjustment factor as a non-TIF tarpaulin for methods with insufficient TIF data. For methyl bromide, the data are limited and variable. Some of the data shows lower emissions with TIF tarpaulin, but other data show essentially no difference in comparison to non-TIF tarpaulins. For chloropicrin, the data indicate that all TIF tarpaulin methods meet the 44 percent emission rating standard for low-emission methods. For 1,3-D, the data indicate that TIF tarpaulin-broadcast-shank injection methods meet the 44 percent emission rating standard for low-emission methods. There is insufficient data to determine if other 1,3-D TIF tarpaulin methods meet the 44 percent emission rating standard for low-emission methods.

DPR proposes to amend current regulations to adopt the interim methods since the data provided show that these methods have VOC emissions no greater than the "low-emission" methods specified in section 6452. As stated above, the interim methods expire three years after the date of approval. If the interim methods are not adopted, the current regulations that prohibit TIF tarpaulins

for use with methyl bromide would require growers and applicators to use standard polyethylene tarpaulins, and therefore, further reduction in VOC emissions for each acre fumigated would not be achieved. This is contrary to DPR's goal for VOCs and U.S. EPA's goal for stratospheric ozone depletion. Also, 1,3-D and chloropicrin (and MITC generating products) fumigation methods can currently use TIF tarpaulins but the reductions achieved cannot be applied to meet our SIP requirements.

Additionally, FAC section 12973 states that use of a pesticide shall not be in conflict with the label. Since many of the same requirements in DPR's regulations are now included on the fumigant labels it is not necessary to repeat the requirements in regulation. DPR proposes revising the regulations to remove language that is required by the labels. Also, DPR proposes minor clarifying and grammatical changes throughout the proposed regulations.

In developing the proposed regulations, DPR discussed the proposal with representatives from groups that will be directly affected including registrants, agricultural commodity organizations, pest control advisers, pest control dealers, applicators, and growers. We received comments during the public meeting with DPR's Pesticide Registration and Evaluation Committee.

The adoption of these proposed regulations would assure that smog-producing emissions from pesticide use in the five ozone NAAs will not exceed the pesticide SIP goal, reducing the ozone level that may be harmful to human health and vegetation when present at high concentrations.

PROPOSED AMENDMENTS

- Section 6000. Definitions.

DPR proposes revising the definitions of "Handle" and "Treated field" to include language used on the revised fumigant label. The revised fumigant label refers to an "entry restricted period" for fumigants rather than a "restricted entry interval," which is used for other pesticides. Also, "or other handling activities specified by the label" has been added.

- Section 6445. Fumigation Handling Activities.

As described above, the term "restricted entry interval" has been revised to "entry restricted period" to conform to revised fumigant label language.

- Section 6447. Methyl Bromide Field Fumigation – General Requirements.

Revised fumigant labels provide instructions on calculating the "broadcast equivalent application rate" or "treated area application rate." The "broadcast equivalent application rate" relates to the rate of fumigant applied within the entire perimeter of the application block. The "treated area application rate" relates to only the rate of fumigant applied to the portion of the field that is fumigated (e.g., rate within the bed or strips). DPR calculates VOC emissions based on the "broadcast equivalent application rate;" therefore, DPR proposes to make specific that when calculating the application rate, the calculation must be based on "broadcast equivalent." DPR proposes changing "application rate" to "broadcast equivalent application rate" for each fumigation

method in subsections 6447(a), and 6447.3(a)(2)-(6)(A). Proposed sections 6448.1(a); 6450.1(a); proposed (e)(11)(A)-(12)(A); and 6452(a) and (b)(1)(B) have also been amended to clarify using the broadcast equivalent application rate.

DPR proposes amending subsections (a) and (c) since respiratory protection and tarpaulin requirements in section 6784(b) are proposed to be deleted. This is explained further in the ISR. Also, DPR proposes to delete subsection (g), since this requirement is included on the revised fumigant label. As mentioned above, FAC section 12973 states that use of a pesticide shall not be in conflict with the label. Since this requirement (along with other requirements proposed to be deleted) is now on revised fumigant labels, it is not necessary to repeat the requirement in regulation. Current subsection (h) has been re-lettered as (g), as well as other subsection references to reflect all the changes.

Currently, subsection (e) prohibits the use of tarpaulins with a permeability factor less than 5 milliliters methyl bromide per hour, per square meter, or per 1,000 parts per million under the tarpaulin at 30 degrees Celsius. However, DPR has reviewed studies showing that using a TIF tarpaulin with a permeability factor less than 5 milliliters provides reductions in VOC emissions equivalent to using the current "non-TIF" tarpaulin when applying methyl bromide. Furthermore, U.S. EPA approved updated fumigant labels to include TIF tarpaulins that have been tested for permeability and qualify for at least 60 percent buffer zone credit reduction on buffer zone distances listed on labels. DPR proposes to allow the methods to use the TIF tarpaulins that are less than five milliliters. However, using these TIF tarpaulins during a methyl bromide fumigation will not allow for the reduction of buffer zones. DPR wants to ensure that the buffer zones are maintained at current distances. DPR proposes amending this section to allow the use of these TIF tarpaulins, while still retaining current regulatory buffer zone distances, as described in section 6447.2. Also, use of a TIF tarpaulin will not lift the prohibition of certain methods specified in subsection (a) in the San Joaquin Valley, Southeast Desert, and Ventura NAAs since data do not show emissions will be further reduced. Those methods should continue to be classified as "high emission."

- Section 6447.2. Methyl Bromide Field Fumigation Buffer Zone Requirements.

DPR proposes deleting the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, incorporated by reference from subsection (a). Methyl bromide product labels include the same buffer zones requirements that are specified in this document; therefore, it is no longer necessary to incorporate this document into the regulations.

DPR proposes deleting current subsections (b) and (c) since these requirements are on the revised fumigant labels.

Current subsections (d) through (i) have been re-lettered as proposed subsections (b)-(g). Proposed subsections (b)-(g) have been amended to provide clarity and consistency with product labeling. Current language could potentially lead to confusion with the requirements on the label.

Subsections (e)(2) and (f)(2): DPR proposes revisions to these subsections so that they conform to the revised label.

Subsection (e)(3)(A)(2): DPR proposes removing language from this subsection since that language can now be found on the revised fumigant label. In addition, DPR added language to this subsection to indicate that wording criteria are in accordance with the label.

Subsection (f)(3): DPR proposes adding the requirement that operators of other properties shall provide permission in writing whenever an outer buffer zone would extend into their property. DPR also proposes adding "buildings" as another location not to be contained in the outer buffer zone. These changes make the regulations conform to the revised fumigant label.

- Section 6447.3 Methyl Bromide Field Fumigation Methods.

Subsection (a) describes the field fumigation methods that are allowed for methyl bromide field soil fumigation and also lists the methods that are prohibited in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs when applying methyl bromide during the May 1 through October 31 time period. DPR proposes deleting "method 1" (i.e., Nontarpaulin/Shallow/Bed) in subsection (a)(1) since the revised labels prohibit this method of application.

Proposed subsections (a)(2)(E), (a)(3)(B)2, (a)(3)(H), (a)(4)(F), (a)(5)(H), and (a)(6)(O) are being amended to delete when the application block restricted entry interval (now referred to as entry restricted period) ends since this requirement is included on the revised fumigant labels. Proposed subsection (a)(3)(B)2 is also being deleted as this requirement is also included on revised labels.

Subsections (a)(3)(F), (a)(4)(E), (a)(5)(F), and (a)(6)(N) describe the time frame in which a tarpaulin is to be cut or perforated following the completion of a methyl bromide injection to an application block. DPR proposes increasing the minimum number of days from five to nine in which the tarpaulin must not be cut or perforated when a TIF tarpaulin is used to ensure that methyl bromide emissions remain low.

DPR proposes to amend subsections (a)(4)(F-G) and (a)(6)(O-P) to increase the entry restricted period when a TIF tarpaulin is used. Fumigant labels restrict entry for a minimum of 24 or 48 hours after tarpaulin cutting has been completed based on whether the tarpaulin will be removed or not before planting. As mentioned above, TIF tarpaulins must not be cut for a minimum of nine days in order to get the necessary reductions in emissions. Therefore the increase in entry restricted period reflects this, coupled with the 24- or 48-hour requirement on the label.

Also, amend various subsections to reflect numbering changes as well as sections that are proposed to be deleted.

- Section 6448.1. 1,3-Dichloropropene Field Fumigation Methods.

Subsection (b) requires specific soil moisture at the time of application and provides a "feel" method to measure soil moisture that is commonly used. DPR proposes deleting this subsection since soil moisture requirements are described on revised fumigant labels. Current subsection (c) has been re-lettered to (b).

Proposed subsection (c) will not allow applications using the same active ingredient between May 1 through October 31 during the same calendar year if the application is made to alternating fumigated and unfumigated areas (strip fumigations). The current emission rating for the non-tarpaulin, deep, shank broadcast is 64 percent; however, the strip method makes an application to only a certain percent of the total application area. The application is made to strips that cover 35-60 percent of the application area which would result in a broadcast equivalent rate of 122.5-210 pounds per acre and a VOC emission rate of 78-134 pounds per acre, respectively, at the maximum label rate of 350 pounds per treated acre. The proposed subsection will not allow a later application to the area left untreated.

As previously mentioned, under specific criteria, the Director may grant interim approval of fumigation methods that reduce VOC emissions. DPR determined that a fumigation method currently prohibited in San Joaquin Valley, Southeast Desert, and Ventura NAAs met the standard for an interim method when using a TIF tarpaulin, and approved the interim method using 1,3-D within the three NAAs. DPR proposes amending subsection (d) to allow method 2 (Tarpaulin/Shallow/Broadcast) only if applied as a broadcast (not as a "bed") and using a TIF tarpaulin. Except for using TIF tarpaulins, the interim broadcast fumigation method is identical to method in section 6448.1(d)(2).

Also in proposed subsection (d), DPR proposes to prohibit method (d)(5), i.e., Nontarpaulin/Deep/Broadcast, when 1,3-D is used in combination with chloropicrin in the San Joaquin Valley, Southeast Desert, and Ventura NAAs unless applied as alternating fumigated and unfumigated areas (strip fumigations). The current emission rating for the non-tarpaulin/deep/broadcast is 64 percent; however, the strip method makes an application to only a certain percent of the total application area. The application is made to strips that cover 35-60 percent of the application area which would result in a broadcast equivalent rate of 122.5-210 pounds per acre and a VOC emission rate of 78-134 pounds per acre, respectively, at the maximum label rate of 350 pounds per treated acre. The resulting rate is below the maximum allowed chloropicrin emission rate of 176 pounds per acre.

Proposed subsections (d)(5) and (6) prohibit tarpaulin/deep/bed fumigations. This type of application is no longer allowed on the revised labels.

Proposed subsections (d)(1)(A), (d)(2)(A), (d)(3)(A), and (d)(4)(A) are being deleted since the injection point requirement is contained on revised fumigant labels.

Subsections (d)(2)(D) and (d)(4)(D) describe the time frame in which a tarpaulin is to be cut or perforated following the completion of a methyl bromide injection to an application block. DPR proposes increasing the minimum number of days from five to nine in which the tarpaulin must not be cut or perforated when a TIF tarpaulin is used. Recent studies show that a minimum of nine days is required to provide necessary reductions in emissions.

- Section 6449.1. Chloropicrin Field Fumigation Methods.

Current subsections (a), (c) and (d) are proposed to be deleted since application rate, soil moisture, and tarpaulin repair requirements are now on the revised fumigant labels.

Current subsection (b) has been re-lettered as (a). For products containing chloropicrin as the sole active ingredient, the field soil fumigation must be made using the methods described in section 6447.3 or 6448.1. However, within the San Joaquin Valley, Southeast Desert and Ventura NAAs some methods are prohibited because some methods are considered "high emission" methods. DPR determined that some fumigation methods currently prohibited met the standard for an interim method when using a TIF tarpaulin, and approved the interim method using chloropicrin. In proposed section (a), methods described in the following sections will be allowed within the three NAAs when using a TIF tarpaulin: sections 6447.3(a)(4), 6447.3(a)(3) and (5) if applied as alternating fumigated and unfumigated areas (strip fumigation), and 6488.1(d)(2) if applied as a bed fumigation. For chloropicrin, the data indicate that all TIF tarpaulin methods meet the 44 percent emission rating standard for low-emission methods.

- Section 6450.1. Metam-Sodium and Potassium N-methyldithiocarbamate (Metam-Potassium) Field Fumigation Methods.

DPR proposes deleting application rate for metam-sodium in subsection (a), soil moisture and cultivating requirements in (b) and proposed (d), respectively, since these are now included on the revised fumigant labels. Also, amend to reflect correct reference citations.

- Section 6452.2. Fumigant Volatile Organic Compound Emission Limits.

In proposed subsections (c)(3) and (d)(3), amend to reflect correct references due to lettering change.

- Section 6784. Field Fumigation.

DPR proposes amending subsection (b)(2) by deleting some employee protection requirements since these are now include on the revised labels, and using the term "entry restricted period" for reasons previously stated. Propose to delete (b)(4) since tarpaulin cutting and removal procedures are also on the labels.

Subsection (b)(2)(C) has been reordered to (b)(2)(B).

COLLABORATION WITH OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT (OEHHA) PURSUANT TO FAC SECTIONS 12980 AND 12981

DPR and OEHHA jointly and mutually developed the proposed regulation as specified in FAC sections 12980 and 12981, utilizing OEHHA's health-based recommendations as a factor in setting DPR's regulatory target level related to pesticides and worker safety. DPR and OEHHA have set forth the rulemaking process used to meet these statutory requirements in a Memorandum of Agreement dated August 13, 2008.

CONSULTATION WITH OTHER AGENCIES

DPR consulted with the California Department of Food and Agriculture during the development of the text of the proposed regulations, as specified in FAC section 11454 and the February 6, 1992, Memorandum of Agreement developed per FAC section 11454.2.

DPR consulted with ARB, University of California, and the Department of Industrial Relations.

DPR has also consulted with the California Agricultural Commissioners and Sealers Association at a Pesticide Regulatory Affairs Committee meeting.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION

DPR has not identified any feasible alternatives to the proposed regulatory action that would lessen any adverse impacts, including any impacts on small businesses, and invites the submission of suggested alternatives.

ECONOMIC IMPACT ON BUSINESS [GOVERNMENT CODE SECTION 11346.2(b)(5)(A)]

The proposed regulations will not have a significant economic impact directly affecting businesses, including the ability of California businesses to compete with business in other states. The document relied upon to make this determination is listed in the "Documents Relied Upon" section of this ISR and is available from DPR.

ECONOMIC IMPACT ASSESSMENT PURSUANT TO SECTION 11346.3(b)

Creation or Elimination of Jobs within the State of California: The proposed action would add and revise existing fumigation methods in the five NAAs providing alternative methods for growers while continuing to reduce the total VOC emissions below the benchmark limits. There will be no creation or elimination of jobs within California.

Creation of New Business or the Elimination of Existing Businesses within the State of California: The proposed action would not create or eliminate businesses. The intent of the proposed regulation is to allow additional or revised fumigation method while continuing to reduce the total VOC emissions below the benchmark limit in the NAAs.

The Expansion of Businesses Currently Doing Business within the State of California: It is unlikely the proposed regulations will result in the expansion of businesses currently doing business within California. Based on 2012 data, an increase of additional 700 acres could have been treated without violating Ventura's VOC emissions inventory benchmark. However, the new fumigant labels have increased buffer zones to address exposure concerns which have resulted in a decrease in acres fumigated from 23,702 in 2012 to 15,760 in 2013. While the use of TIF tarps would allow 700 more acres to be fumigated without going over the fumigant limit, the new buffer zone restrictions designed to limit exposure may prohibit some or all of that increased acreage allowed by the use of TIF tarps under the interim method now being proposed as an amendment to the VOC regulations.

The Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment: The federal Clean Air Act requires each state to submit a SIP for achieving and maintaining federal ambient air quality standards for ozone. California's SIP contains an element to reduce pesticidal sources of VOCs. VOCs contribute to the formation of ground-level ozone, which is harmful to human health and vegetation when present at high enough concentrations. The adoption of these proposed regulations would assure that smog-producing emissions from pesticide use in the five ozone NAAs will not exceed the California SIP goal, reducing the ozone level that may be harmful to human health and vegetation when present at high concentration. Adoption of these regulations will provide a benefit to public health and the environment by continuing to reduce VOC emissions in the NAAs.

IDENTIFICATION OF ANY SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECT THAT CAN REASONABLY BE EXPECTED TO OCCUR FROM IMPLEMENTING THE PROPOSAL

DPR's review of the proposed action showed that no significant adverse effect to California's environment can reasonably be expected to occur from implementing the proposal. Therefore, no alternatives or mitigation measures are proposed to lessen any significant adverse effects on the environment.

EFFORTS TO AVOID UNNECESSARY DUPLICATION WITH FEDERAL REGULATIONS

The proposed regulatory action does not duplicate or conflict with any regulations contained within the CFR. There are no regulations within the CFR that address this issue.

As noted in this ISR, the federal Clean Air Act requires each state to submit a SIP for achieving and maintaining federal ambient air quality standards, including the standard for ozone. In 1994 (and revised in 2007 and 2009), ARB and DPR developed a plan to reduce pesticidal sources of VOCs in NAAs as part of the California SIP to meet the ozone standard.

DOCUMENTS RELIED UPON

1. Hydrus Simulation of Chloropicrin and 1,3-Dichloropropene Transport and Volatilization in the Lost Hills Fumigation Trials. Memorandum from Frank Spurlock, Bruce Johnson, and Atac Tuli to Randy Segawa, Environmental Monitoring Branch, DPR. February 8, 2013.
http://www.cdpr.ca.gov/docs/emon/pubs/ehapreps/analysis_memos/2420-segawa_final.pdf
2. DPR. 2013. *Director's Decision Concerning Environmental Monitoring Branch's Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*. Brian Leahy, Director, Department of Pesticide Regulation. April 29, 2013.
3. DPR. 2014. *Director's Decision Concerning Environmental Monitoring Branch's Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*. Brian Leahy, Director, Department of Pesticide Regulation. July 31, 2014.

4. DPR. 2014. *Director's Decision Concerning TriCal, Inc.'s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*. Brian Leahy, Director, Department of Pesticide Regulation. July 31, 2014.
5. County Agricultural Commissioner and Sealers Association's Pesticide Regulatory Affairs Committee Minutes, October 22, 2014.
6. Pesticide Registration and Evaluation Committee Minutes, September 19, 2014.
7. Economic Analysis for the Department of Pesticide Regulation Amendment to Title 3 CCR Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. California Environmental Protection Agency, Agencywide Economic Studies Section, Air Resources Board. Memorandum from Stephen Storelli to Linda Irokawa-Otani, Regulations Coordinator, DPR. April 24, 2015.

ECONOMIC AND FISCAL IMPACT STATEMENT**(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME Pesticide Regulation	CONTACT PERSON Pam Wofford	EMAIL ADDRESS pam.wofford@cdpr.ca.gov	TELEPHONE NUMBER 916-324-4297
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 Field Fumigation Use Requirements			NOTICE FILE NUMBER Z

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- ☒ a. Impacts business and/or employees
 ☐ e. Imposes reporting requirements
☒ b. Impacts small businesses
 ☐ f. Imposes prescriptive instead of performance
☐ c. Impacts jobs or occupations
 ☐ g. Impacts individuals
☐ d. Impacts California competitiveness
 ☐ h. None of the above (Explain below):

*If any box in Items 1 a through g is checked, complete this Economic Impact Statement.**If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.*

Department of Pesticide Regulation

2. The Department of Pesticide Regulation estimates that the economic impact of this regulation (which includes the fiscal impact) is:

(Agency/Department)

- ☒ Below \$10 million
☐ Between \$10 and \$25 million
☐ Between \$25 and \$50 million
☐ Over \$50 million *(If the economic impact is over \$50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c))*

3. Enter the total number of businesses impacted: 1,300Describe the types of businesses (Include nonprofits): Growers of agricultural crops who treat their field with fumigants in the 5 NAAsEnter the number or percentage of total businesses impacted that are small businesses: 20%4. Enter the number of businesses that will be created: 0 eliminated: 0Explain: Regulations add fumigation methods for current applicators to use in the 5 NAAs.5. Indicate the geographic extent of impacts: ☐ Statewide☒ Local or regional (List areas): 5 nonattainment areas - see attached6. Enter the number of jobs created: 0 and eliminated: 0Describe the types of jobs or occupations impacted: N/A

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?

☐ YES☒ NO

If YES, explain briefly:

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

ECONOMIC IMPACT STATEMENT (CONTINUED)**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ 48.1 mil savings
- a. Initial costs for a small business: \$ N/A Annual ongoing costs: \$ N/A Years: N/A
- b. Initial costs for a typical business: \$ 0 Annual ongoing costs: \$ 21K savings Years: 5
- c. Initial costs for an individual: \$ N/A Annual ongoing costs: \$ N/A Years: N/A
- d. Describe other economic costs that may occur: _____

2. If multiple industries are impacted, enter the share of total costs for each industry: 100 percent agricultural commodity producers

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted. \$ N/A

4. Will this regulation directly impact housing costs? ☐ YES ☒ NO

If YES, enter the annual dollar cost per housing unit: \$ _____

Number of units: _____

5. Are there comparable Federal regulations? ☐ YES ☒ NO

Explain the need for State regulation given the existence or absence of Federal regulations: Pesticide element of the State Implementation Plan (SIP) for VOC Emissions from Pesticides (federal Clean Air Act)

Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ 0

C. ESTIMATED BENEFITS *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: Reduction in volatile organic compounds leading to reductions in ozone. People living in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas will benefit.

2. Are the benefits the result of: ☒ specific statutory requirements, or ☐ goals developed by the agency based on broad statutory authority?

Explain: Pesticide element of the SIP for VOC Emissions from Pesticides (federal Clean Air Act)

3. What are the total statewide benefits from this regulation over its lifetime? \$ 48.1 mil savings

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: Regulations may increase production of fumigated crops in NAAs with emission limitations. Applications will be made by existing businesses.

D. ALTERNATIVES TO THE REGULATION *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: see attached.

ECONOMIC AND FISCAL IMPACT STATEMENT**(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ 48.1 mil savings Cost: \$ 0Alternative 1: Benefit: \$ 0 Cost: \$ 0

Alternative 2: Benefit: \$ _____ Cost: \$ _____

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives:

None

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs?

☐ YES☒ NOExplain: This regulation provides another alternative which the use of specific equipment and procedure will result in greater protection, compliance and enforceability.**E. MAJOR REGULATIONS** *Include calculations and assumptions in the rulemaking record.**California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.*

1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million?
- ☐
- YES
- ☒
- NO

*If YES, complete E2. and E3**If NO, skip to E4*

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: _____

Alternative 2: _____

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 1: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 2: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

☐ YES☒ NO*If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.*

5. Briefly describe the following:

The increase or decrease of investment in the State: Environmental and health benefit to state through reduction of VOC emissions.Increased production of strawberries and orchards.The incentive for innovation in products, materials or processes: Increase production of crops, such as strawberries and orchard nuts and fruits, and promote innovation of more effective field fumigation tarpaulins.

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: _____

see attached.

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

FISCAL IMPACT STATEMENT**A. FISCAL EFFECT ON LOCAL GOVERNMENT** *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

- ☐ 1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

- ☐ a. Funding provided in: _____

Budget Act of _____ or Chapter _____, Statutes of _____

- ☐ b. Funding will be requested in the Governor's Budget Act of _____

Fiscal Year: _____

- ☐ 2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

- ☐ a. Implements the Federal mandate contained in _____

- ☐ b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

- ☐ c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____

Date of Election: _____

- ☐ d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

- ☐ e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

- ☐ f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

- ☐ g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

- ☐ 3. Annual Savings. (approximate)

\$ _____

- ☐ 4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

- ☒ 5. No fiscal impact exists. This regulation does not affect any local entity or program.

- ☐ 6. Other. Explain _____

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 399 (REV. 12/2013)

FISCAL IMPACT STATEMENT (CONTINUED)**B. FISCAL EFFECT ON STATE GOVERNMENT** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

It is anticipated that State agencies will:☐ a. Absorb these additional costs within their existing budgets and resources.☐ b. Increase the currently authorized budget level for the _____ Fiscal Year☐ 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any State agency or program.☐ 4. Other. Explain _____**C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

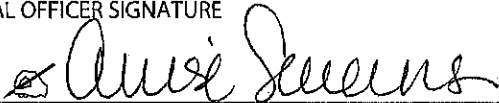
\$ _____

☐ 2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.☐ 4. Other. Explain _____

FISCAL OFFICER SIGNATURE

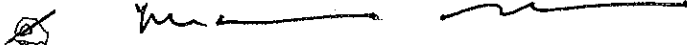


DATE

7/28/15

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY



DATE

7/28/15

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER



DATE

Fiscal and Economic Impact Statement (Std. 399) – Attachment

A.5. Sacramento, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs)

B.1. Although the regulations generally impact 1,300 growers in the San Joaquin Valley, Sacramento, South Coast, Southeast Desert, and Ventura NAAs, the focus of the economic impact is on the 529 growers in the Ventura NAA where the pesticide use reports indicate they have shifted to the interim methods using totally impermeable tarpaulins (TIF). The use of TIF tarpaulins allowed more acres to be fumigated annually than if using a polyethylene tarpaulin while reducing the total VOC emissions below the benchmark limit in Ventura NAA.

The regulation will allow an additional 700 acres (mostly strawberries) to be grown in Ventura NAA without exceeding the VOC benchmark, with the potential of increasing net income to growers by \$11 million (2012 \$) assuming no other restrictions on use. Over the life of the regulation, the estimated increase in income to growers is \$48.1 million (2012\$) (\$11 million/yr. discounted by 5% each year over 5 years).

B.1.a. In the Ventura NAA, there are no small businesses.

B.1.b. $\$21,000 \text{ (2012\$)} = \$11,000,000 / 529 \text{ growers in the Ventura NAA.}$

D.1. Do not promulgate regulations. If the interim methods are not adopted, current regulation would require applicators to use standard tarpaulins when using methyl bromide, increasing VOC emissions. Further, current regulation would not allow reductions in VOC emissions, resulting from the use of TIF tarpaulins with 1,3-D and chloropicrin, to be applied to show reductions in meeting our SIP obligations.

E.5. Reduction in volatile organic compounds leading to reductions in ozone. People living in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura NAAs will benefit.



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Karen Finn, Program Budget Manager
Department of Finance
REEL Unit
915 L Street
Sacramento, California 95814

FROM: Linda Irokawa-Otani *Linda Irokawa-Otani*
Regulations Coordinator
(916) 445-3991

DATE: August 3, 2015

SUBJECT: Form STD. 399 for DPR Regulation No. 15-002

The Department of Pesticide Regulation (DPR) has filed a Notice of Proposed Regulatory Action to the Office of Administrative Law. It will be published in the August 7, 2015 issue of the *California Regulatory Notice Register*.

DPR proposes to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. The proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

DPR has determined that there will no fiscal impact to state or local agencies and therefore, I have attached for your information, a copy of Form STD. 399, as well as copies of the Notice, Initial Statement of Reasons, and the Text of the Proposed Regulations.

If you have any questions, please feel free to contact me.

Attachments





Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: David Ting, Ph.D., Chief
Pesticides and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
1515 Clay Street, 16th Floor
Oakland, California 94612

FROM: Lisa Ross, Ph.D.
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

*Ken [Signature]
for Lisa Ross*

DATE: October 19, 2014

SUBJECT: CONCURRENCE ON PROPOSED TEXT FOR FIELD FUMIGATION
METHODS

The Department of Pesticide Regulation (DPR) sent you a memorandum dated June 1, 2015, requesting comment on the proposed regulations to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling. Also, DPR proposed minor clarifying and grammatical changes throughout the proposed regulations.

On June 12, 2015, DPR received your memorandum stating concurrence with the proposed action. The proposed regulations were made available to the public on August 7, 2015. The public comment period closed on September 23, 2015. Pam Wofford, DPR's Environmental Monitoring Branch, met with your staff, Chuck Salocks and Catherine Caraway to discuss the comments received. It has been determined that changes to sections 6447.2(a) and 6449.1(a)(2) are necessary.

These regulatory revisions apply only to field fumigant emissions and do not appear to include worker safety issues that are required by FAC section 12980 and the August 13, 2008, agreement to mutually develop worker safety regulations. However, since DPR and OEHHHA agreed to work together to develop the proposed regulations, DPR is again, requesting OEHHHA's concurrence on the proposed modified text. Also attached is the Notice of Modifications to Text of Proposed Changes. Because of the extremely short time frame we have to adopt the interim methods into regulations, we would like to request you provide us your concurrence by October 26, 2015.



Dr. David Ting
October 19, 2015
Page 2

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford (916) 324-4297.

Attachments

cc: Chuck Salocks, OEHHA, Pesticide and Environmental Toxicology Branch
Catherine Caraway, OEHHA, Pesticide and Environmental Toxicology Branch
Pam Wofford, DPR, Environmental Monitoring Branch
Linda Irokawa-Otani, DPR's Regulations Coordinator
Charlene Martens, DPR, Worker Health and Safety Branch



Department of Pesticide Regulation

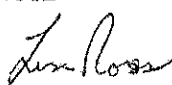


Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: David Ting, Ph.D., Chief
Pesticides and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
1515 Clay Street, 16th Floor
Oakland, California 94612

FROM: Lisa Ross, Ph.D. 
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

DATE: January 27, 2015

SUBJECT: CONCURRENCE ON PROPOSED TEXT FOR FIELD FUMIGATION
METHODS

In 2012, U.S. EPA approved updated labels for soil fumigants currently registered to include new requirements for buffer zones and related measures. The revised labels include buffer zone credits for tarpaulins that greatly reduce volatile organic compound (VOC) emissions of the fumigants in the soil, also known as totally impermeable film (TIF) tarpaulins. On the labels, they are referred to as tarpaulins that have been tested for permeability and determined by the U.S. EPA to qualify for at least 60 percent buffer zone reduction credit.

The Department of Pesticide Regulation's (DPR), Worker Health and Safety, Environmental Monitoring, and Enforcement Branch staff have been working in conjunction with Dr. Charles Salocks and Catherine Caraway, Office of Health Hazard Assessment (OEHHA) to amend 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. The pesticide regulatory program activities that will be affected by the proposal are those pertaining to environmental monitoring and pesticide enforcement. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling. Food and Agricultural Code (FAC) section 12973 states that use of a pesticide shall not be in conflict with the label. Since many of the same requirements in DPR's regulations are now included on the fumigant labels it is not necessary to repeat the requirements in regulation. DPR proposes revising the regulations to remove language that is required by the labels. Also, DPR proposes minor clarifying and grammatical changes throughout the proposed regulations.

Within the five NAAs during May 1 through October 31, only the fumigation methods specified in sections 6447.3, 6448.1, 6449.1 and 6450.1 are allowed except some of these methods classified as "high-emission" are prohibited in the San Joaquin Valley, Southeast Desert, and



Ventura NAAs. Under specific criteria, the Director may grant interim approval of fumigation methods that reduce VOC emissions (3 CCR section 6452). DPR proposes to amend current regulations to include interim methods since the data provided show that these methods have VOC emissions no greater than the "low-emission" methods specified in section 6452. In the past several years, DPR reviewed several studies that estimated fumigant emissions from applications that used TIF tarpaulins. Except for the type of tarpaulin, fumigations with TIF tarpaulins are identical to other methods specified by DPR's VOC regulations. DPR determined that the TIF tarpaulin fumigation methods meet the standard for an interim method, and approved interim use of the TIF tarpaulin methods using methyl bromide, chloropicrin, or 1,3-D. DPR defined TIF tarpaulins as those for which labeling assigns a buffer zone credit of 60 percent.

These regulatory revisions apply only to field fumigant emissions and don't appear to include worker safety issues that are required by FAC section 12980 and the August 13, 2008, agreement to mutually develop worker safety regulations. However, since DPR and OEHHA agreed to work together to develop the proposed regulations, DPR is now requesting OEHHA's concurrence so that we may proceed to collaboratively develop the regulatory notice and the Initial Statement of Reasons. Please provide us your concurrence by February 6, 2015.

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford from Environmental Monitoring Branch at (916) 324-4297.

Attachment

cc: Charles Salocks, OEHHA, Pesticide and Environmental Toxicology Branch
Catherine Caraway, OEHHA, Pesticide and Environmental Toxicology Branch
Linda Irokawa-Otani, DPR's Regulations Coordinator
Randy Segawa, DPR, Pesticide Programs Division
David Duncan, DPR, Environmental Monitoring Branch
Pam Wofford, DPR, Environmental Monitoring Branch
George Farnsworth, DPR, Enforcement Branch
Regina Sarracino, DPR, Enforcement Branch
Charlene Martens, DPR, Worker Health and Safety Branch
Kevin Solari, DPR, Worker Health and Safety Branch
Leslie Cowl, DPR, Worker Health and Safety Branch

Office of Environmental Health Hazard Assessment



Matthew Rodriguez
Secretary for
Environmental Protection

George V. Alexeeff, Ph.D., D.A.B.T., Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Lisa Ross, Ph.D.
Chief, Worker Health and Safety Branch
Department of Pesticide Regulation
1001 I Street, P. O. Box 4015, MS-3B
Sacramento, California 95812-4015

FROM: David Ting, Ph.D.
Chief, Pesticide and Environmental Toxicology Branch
1515 Clay Street, 16th Floor
Oakland, California 94612

DATE: February 13, 2015

SUBJECT: CONCURRENCE ON THE PROPOSED TEXT FOR FIELD FUMIGATION REGULATIONS

The Office of Environmental Health Hazard Assessment (OEHHA) has reviewed the Department of Pesticide Regulation's (DPR) proposed text to amend Title 3 of the California Code of Regulations Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2 and 6784 pertaining to field fumigation methods.

We agree that the primary objectives of these revisions are to reduce volatile organic compound (VOC) emissions in ozone non-attainment areas of the state as well as establish consistency with recent changes to the federal fumigant labels, and we believe this regulatory package includes provisions that will improve the health and safety of agricultural workers.

The August 13, 2008 Memorandum of Understanding between our agencies states we will jointly and mutually develop worker health and safety regulations under the provisions of sections 12980 and 12981 of the Food and Agricultural Code. The latter section cites the worker health and safety subjects to be jointly addressed by our agencies. Several of these subjects are addressed in the proposed field fumigation regulations. For example, the proposed revisions address newly required provisions that specify tarp cutting and removal procedures (6784) which provide additional protections for workers. For this reason, OEHHA fully supports these regulatory proposals.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

Lisa Ross, Ph.D.
February 13, 2015
Page 2

Therefore, in accordance with Sections 12980 and 12981 of the Food and Agricultural Code and the August 13, 2008 Memorandum of Understanding between our agencies, we concur with the proposed regulatory changes.

We appreciate the dedication and professionalism of your staff, particularly Pam Wofford who is the lead for this regulatory package, and we look forward to continued collaboration with you on these important regulatory actions. Should you have any questions, please contact Dr. Charles Salocks at (916) 323-2605 or Catherine Caraway at (916) 323-6507.

cc: Allan Hirsch
Chief Deputy Director
Office of Environmental Health Hazard Assessment

George V. Alexeeff, Ph.D., DABT
Director Office of Environmental Health Hazard Assessment

Carol Monahan-Cummings
Chief Counsel
Office of Environmental Health Hazard Assessment

Charles Salocks, Ph.D., DABT
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment

Catherine Caraway
Associate Industrial Hygienist
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: David Ting, Ph.D., Chief
Pesticides and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
1515 Clay Street, 16th Floor
Oakland, California 94612

FROM: Lisa Ross, Ph.D. *L Ross*
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

DATE: June 1, 2015

SUBJECT: CONCURRENCE ON INITIAL STATEMENT OF REASON AND NOTICE OF
PROPOSED ACTION FOR FIELD FUMIGATION METHODS

In accordance with Food and Agricultural Code section 12980 and the August 13, 2008, agreement on the process related to the mutual development of worker safety regulations, the Department of Pesticide Regulation's (DPR), Worker Health and Safety, Environmental Monitoring, and Enforcement Branch staff have been working in conjunction with Dr. Charles Salocks and Catherine Caraway, Office of Health Hazard Assessment (OEHHHA) to amend Title 3 California Code of Regulations sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. The pesticide regulatory program activities that will be affected by the proposal are those pertaining to environmental monitoring and pesticide enforcement. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling. Food and Agricultural Code (FAC) section 12973 states that use of a pesticide shall not be in conflict with the label. Since many of the same requirements in DPR's regulations are now included on the fumigant labels it is not necessary to repeat the requirements in regulation. DPR proposes revising the regulations to remove language that is required by the labels. Also, DPR proposes minor clarifying and grammatical changes throughout the proposed regulations.

On February 13, 2015, you provided your concurrence on the proposed text. Since then, DPR jointly developed with OEHHHA, the Initial Statement of Reasons and Notice of Proposed Action (attached). Please provide a letter of concurrence on these documents by June 9, 2015.

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford at (916) 324-4297.



David Ting
June 1, 2015
Page 2

Attachments

cc: Chuck Salocks, OEHHA, Pesticide and Environmental Toxicology Branch
Catherine Caraway, OEHHA, Pesticide and Environmental Toxicology Branch
Linda Irokawa-Otani, DPR's Regulations Coordinator
Charlene Martens, DPR, Worker Health and Safety Branch
Kevin Solari, DPR, Worker Health and Safety Branch
Leslie Crowl, DPR, Worker Health and Safety Branch
Randy Segawa, DPR, Pesticide Programs Division
David Duncan, DPR, Environmental Monitoring Branch
Pam Wofford, DPR, Environmental Monitoring Branch
George Farnsworth, DPR, Enforcement Branch
Regina Sarracino, DPR, Enforcement Branch

Office of Environmental Health Hazard Assessment



Matthew Rodriguez
Secretary for
Environmental Protection

George V. Alexeeff, Ph.D., D.A.B.T., Director
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Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Lisa Ross, Ph.D.
Chief, Worker Health and Safety Branch
Department of Pesticide Regulation
1001 I Street, P.O. Box 4015, MS-3B
Sacramento, California 95812-4015

FROM: David Ting, Ph.D.
Chief, Pesticide and Environmental Toxicology Branch
1515 Clay Street, 16th Floor
Oakland, California 94612

DATE: June 12, 2015

SUBJECT: CONCURRENCE ON THE INITIAL STATEMENT OF REASONS AND
NOTICE OF PROPOSED ACTION FOR FIELD FUMIGATION METHODS

The Office on Environmental Health Hazard Assessment (OEHA) has reviewed the Department of Pesticide Regulation's Initial Statement of Reasons (ISR), Notice of Proposed Action and the proposed regulatory text to amend Title 3 of the California Code of Regulations Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2 and 6784 pertaining to field fumigation methods.

In accordance with the Food and Agricultural Code Sections 12980 and 12981 we are providing our concurrence with this regulatory package which is anticipated to enhance worker health and safety protections for those working with fumigants, as well as control volatile organic compound (VOC) emissions from fumigants in ozone non-attainment areas in the Sacramento Metro, Southeast Desert, San Joaquin Valley, South Coast and Ventura air districts. The fumigants being regulated are methyl bromide, chloropicrin, 1,3-dichloropropene, metam potassium and metam sodium.

This is a complicated and multifaceted regulatory package dealing with a wide range of subjects and disparate issues. We want to commend Pam Wofford, lead for this regulatory package, for her skilled professionalism, knowledge and expertise in the development of these regulations.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

Lisa Ross, Ph.D.
June 12, 2015
Page 2

Thank you for the opportunity to work with you on these important regulations. Should you have any questions, please contact Dr. Charles Salocks at (916) 323-2605 or Catherine Caraway at (916) 323-6507.

cc: Lauren Zeise, Ph.D.
Acting Director
Office of Environmental Health Hazard Assessment

Allan Hirsh
Chief Deputy Director
Office of Environmental Health Hazard Assessment

Melanie Marty, Ph.D.
Acting Deputy Director, Scientific Affairs Division
Office of Environmental Health Hazard Assessment

Carol Monahan-Cummings,
Chief Counsel
Office of Environmental Health Hazard Assessment

Charles Salocks, Ph.D.,
Chief, Pesticide Epidemiology Section,
Office of Environmental Health Hazard Assessment

Catherine Caraway,
Pesticide Epidemiology Section,
Office of Environmental Health Hazard Assessment

Pam Wofford,
Environmental Monitoring Branch, DPR

Randy Segawa,
Pesticide Programs Division, DPR

George Farnsworth,
Chief, Enforcement Branch, DPR

Office of Environmental Health Hazard Assessment



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Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Lisa Ross, Ph.D.
Chief, Worker Health and Safety Branch
Department of Pesticide Regulation
1001 I Street, MS-3B
Sacramento, California 95812-4015

FROM: David Ting, Ph.D. *David Ting*
Chief, Pesticide and Environmental Toxicology Branch
1515 Clay Street, 16th Floor
Oakland, California 94612

DATE: October 26, 2015

SUBJECT: CONCURRENCE ON PROPOSED REGULATORY TEXT FOR FIELD
FUMIGATION METHODS

On October 19, 2015, the Department of Pesticide Regulation (DPR) requested concurrence from the Office of Environmental Health Hazard Assessment (OEHA) on changes to the Field Fumigation Methods rulemaking package. Following a 45-day comment period and public meeting, DPR concluded two additional changes were needed to strengthen and clarify the regulations.

The first proposed change is to section 6447.2(a) of the California Code of Regulations to incorporate by reference the document entitled Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10. This change is essential as current federal labels refer California applicators back to our state-specific regulations to determine correct buffer zone distances applying Methyl Bromide.

The second proposed change is to section 6449.1(a)(2) to clarify that in order to qualify as a low emission method; strip field applications must limit the maximum broadcast equivalent application rate for chloropicrin to 210 pounds/acre. This change strengthens this regulatory package's intent to reduce fumigant emissions into the atmosphere.

California Environmental Protection Agency

Sacramento: (916) 324-7572 Oakland: (510) 622-3200

www.oehha.ca.gov

Lisa Ross, Ph.D.
October 26, 2015
Page 2

OEHHA has reviewed these proposed changes and the public comments received and we have met with Pam Wofford of DPR's Environmental Monitoring Branch. We concur with these two proposed changes in accordance with the Food and Agricultural Code section 12980 and 12981 and agree they will clarify and strengthen the Field Fumigation Methods regulatory package.

We appreciate the opportunity to work with you on these regulations. Should you have any questions, please contact Dr. Charles Salocks at (916) 323-2605 or Catherine Caraway at (916) 323-6507.

cc: Lauren Zeise, Ph.D., Acting Director
Office of Environmental Health Hazard Assessment

Melanie Marty, Ph.D., Acting Deputy Director
Scientific Affairs Division
Office of Environmental Health Hazard Assessment

Charles Salocks, Ph.D., Chief
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment

Catherine Caraway, Associate Industrial Hygienist
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment

Pam Wofford
Environmental Monitoring Branch
Department of Pesticide Regulation



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: David Ting, Ph.D., Chief
Pesticides and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
1515 Clay Street, 16th Floor
Oakland, California 94612

FROM: Lisa Ross, Ph.D. *[Original signed by L. Ross]*
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

DATE: November 23, 2015

SUBJECT: CONCURRENCE ON PROPOSED TEXT FOR FIELD FUMIGATION
METHODS

In accordance with Food and Agricultural Code section 12980 and the August 13, 2008, agreement to mutually develop worker safety regulations, the Department of Pesticide Regulation (DPR) and the Office of Environmental Health Hazard Assessment (OEHHA) worked together to develop proposed regulation to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling. Also, DPR proposed minor clarifying and grammatical changes throughout the proposed regulations.

On June 17, 2015, you provided your concurrence on the proposed text, Initial Statement of Reasons, and Notice of Proposed Action. Since then, DPR has jointly developed with OEHHA the final text and Final Statement (attached). As part of our joint and mutual responsibility, we are asking for a letter of concurrence on the final regulatory package by December 4, 2015.

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford (916) 324-4297.

Attachments



Dr. David Ting
November 23, 2015
Page 2

cc: Chuck Salocks, OEHHA, Pesticide and Environmental Toxicology Branch
Catherine Caraway, OEHHA, Pesticide and Environmental Toxicology Branch
Pam Wofford, DPR, Environmental Monitoring Branch
Linda Irokawa-Otani, DPR's Regulations Coordinator
Charlene Martens, DPR, Worker Health and Safety Branch

Office of Environmental Health Hazard Assessment



Matthew Rodriguez
Secretary for
Environmental Protection

Lauren Zelse, Ph.D., Acting Director

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Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Lisa Ross, Ph.D.
Chief, Worker Health and Safety Branch
Department of Pesticide Regulation
1001 I Street, MS-3B
Sacramento, California 95812-4015

FROM: David Ting, Ph.D., Chief
Pesticide and Environmental Toxicology Branch
1515 Clay Street, 16th Floor
Oakland, California 94612

DATE: December 2, 2015

SUBJECT: CONCURRENCE ON THE FINAL PROPOSED REGULATORY TEXT
FOR FIELD FUMIGATION METHODS

On November 23, 2015, the Department of Pesticide Regulation (DPR) requested concurrence from the Office of Environmental Health Hazard Assessment (OEHHHA) on the final proposed text for Field Fumigation Methods rulemaking package. This follows an additional 15-day public comment period in which one comment was received. The commenter agreed with the changes being made to the regulations and requested additional revisions that are outside the scope of this regulatory package.

OEHHHA has reviewed the Final Statement of Reasons and the final proposed text and is providing concurrence with this regulatory package in accordance with the Food and Agricultural Code sections 12980 and 12981. Once these regulations are implemented, it is anticipated they will reduce emissions from fumigant volatile organic compounds in ozone non-attainment areas and will provide greater safety to workers who are involved with field fumigation activities.

California Environmental Protection Agency

Sacramento: (916) 324-7572 Oakland: (510) 622-3200

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We appreciate the opportunity to work with you on these regulations and the dedication of your staff to their enactment. Should you have any questions, please contact Dr. Charles Salocks at (916) 323-2605 or Catherine Caraway at (916) 323-6507.

cc: Lauren Zeise, Ph.D., Acting Director
Office of Environmental Health Hazard Assessment

Melanie Marty, Ph.D., Acting Deputy Director
Scientific Affairs Division
Office of Environmental Health Hazard Assessment

Charles Salocks, Ph.D., D.A.B.T, Chief
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment

Catherine Caraway, Associate Industrial Hygienist
Pesticide Epidemiology Section
Office of Environmental Health Hazard Assessment

Pamela Wofford
Environmental Monitoring Branch
Department of Pesticide Regulation
1001 I Street, MS-3B
Sacramento, California 95812-4015



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Mr. John Steggall
Mr. Dave Luscher
Office of Pesticide Consultation and Analysis
California Department of Food and Agriculture
1220 N Street, Room 211
Sacramento, California 95814

FROM: Linda Irokawa-Otani *Linda Irokawa-Otani*
Regulations Coordinator
445-3991

DATE: June 15, 2015

SUBJECT: PRE-NOTICE COMMENTS ON THE DEPARTMENT OF PESTICIDE
REGULATION'S PROPOSAL PERTAINING TO FIELD FUMIGANT USE
REQUIREMENTS

The Department of Pesticide Regulation (DPR) proposes to amend 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

Consultation requirements between the California Department of Food and Agriculture (CDFA) and DPR are specified in Food and Agricultural Code (FAC) section 11454.2, and the April 20, 2013 Memorandum of Understanding (MOU) which was developed as provided in section 11454.2.

Under paragraph 5(b) of the MOA, "DPR will notify CDFA of the development of regulations relating to the possession and use of any restricted material pesticides prior to the issuance of a notice of proposed rulemaking. DPR will specify a time period within which CDFA may comment prior to the issuance of the notice of the proposed rulemaking. DPR will respond in writing to all comments made by CDFA."

FAC section 11454.2 specifies that "Information to be provided by the Department of Food and Agriculture [to DPR] shall include, but not be limited to (1) impacts on agriculture resulting from the proposed action, (2) benefits derived from the use of the pesticide, and (3) recommended alternative action."



John Steggall
Dave Luscher
June 15, 2014
Page 2

CDFA has participated in DPR's Worker Safety Regulations Work Group to discuss and comment on regulation development as it pertains to pesticides and worker safety issues. If CDFA has any FAC section 11454.2 comments concerning the proposed rulemaking to submit to DPR prior to DPR's issuance of the notice, the comments must be received on or before June 26, 2015.

Attached is the draft Notice of Proposed Action, the Initial Statement of Reasons, the Text of the Proposed Regulation, and the Economic and Fiscal Impact Form 399.

If you have any questions, please feel free to contact me.

Attachments

Irokawa-Otani, Linda@CDPR

From: Luscher, Dave@CDFA <dave.luscher@cdfa.ca.gov>
Sent: Thursday, June 25, 2015 11:33 AM
To: Irokawa-Otani, Linda@CDPR
Cc: Steggall, John@CDFA
Subject: Pre-Notice Comments: Regulation Proposal Pertaining to Field Fumigant Use Requirements

Hello Linda,

This is to confirm receipt of your June 15th, 2015 e-mail and memorandum regarding submission of CDFA FAC section 11454.2 comments concerning the subject proposed rulemaking. You requested submission of our comments on or before June 26, 2015.

We have reviewed the proposed regulation and have no comments.

Thank you,

Dave Luscher
California Department of Food and Agriculture
Office of Pesticide Consultation and Analysis
916-403-6618



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Mr. Dave Luscher
Office of Pesticide Consultation and Analysis
California Department of Food and Agriculture
1220 N Street, Room 211
Sacramento, California 95814

FROM: Linda Irokawa-Otani
Regulations Coordinator
445-3991

DATE: October 26, 2015

SUBJECT: PRE-NOTICE COMMENTS ON THE DEPARTMENT OF PESTICIDE
REGULATION'S PROPOSAL PERTAINING TO FIELD FUMIGANT USE
REQUIREMENTS

The Department of Pesticide Regulation (DPR) sent you a memorandum dated June 15, 2015 requesting comments on the proposed regulations to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

On June 26, 2015, DPR received response stating you had no comments at the time. The proposed regulations were made available to the public on August 7, 2015. The public comment period closed on September 23, 2015. Based on comments received, additional changes have been made to sections 6447.2(a) and 6449.1(a)(2).

Consultation requirements between the California Department of Food and Agriculture (CDFA) and DPR are specified in Food and Agricultural Code (FAC) section 11454.2, and the April 20, 2013 Memorandum of Understanding (MOU) which was developed as provided in section 11454.2.

Under paragraph 5(b) of the MOA, "DPR will notify CDFA of the development of regulations relating to the possession and use of any restricted material pesticides prior to the issuance of a notice of proposed rulemaking. DPR will specify a time period within which CDFA may comment prior to the issuance of the notice of the proposed rulemaking. DPR will respond in writing to all comments made by CDFA."

FAC section 11454.2 specifies that "Information to be provided by the Department of Food and Agriculture [to DPR] shall include, but not be limited to (1) impacts on agriculture resulting from



Dave Luscher
October 26, 2014
Page 2

the proposed action, (2) benefits derived from the use of the pesticide, and (3) recommended alternative action."

I am enclosing for your review a copy of the draft Notice of Modifications to Text of Proposed Changes and the Modified Text of the Proposed Regulation. Please note that these documents are considered pre-decisional and should not be shared with anyone outside your organization.

If CDFA has any FAC section 11454.2 comments concerning the proposed rulemaking to submit to DPR prior to DPR's issuance of the 15-day notice, the comments must be received on or before October 30, 2015. If CDFA would like to provide any additional comments after this date, you may do so during the public comment period.

If you have any questions, please feel free to contact me.

Attachments

Irokawa-Otani, Linda@CDPR

From: Luscher, Dave@CDFA <dave.luscher@cdfa.ca.gov>
Sent: Monday, November 02, 2015 3:35 PM
To: Irokawa-Otani, Linda@CDPR
Cc: Steggall, John@CDFA
Subject: RE: VOC 6 Modified Text

Hello Linda,

We do not have comments on this latest modified text.

Regards,

Dave Luscher
California Department of Food and Agriculture
Office of Pesticide Consultation and Analysis

From: Irokawa-Otani, Linda@CDPR [<mailto:Linda.Irokawa-Otani@cdpr.ca.gov>]
Sent: Monday, October 26, 2015 10:31 AM
To: Luscher, Dave@CDFA
Subject: VOC 6 Modified Text

Hi Dave

DPR is proposing to make modifications to the regulations pertaining to field fumigant use requirements. Attached is the notice of modified text and the proposed modified text for your review. I will send a hard copy via interagency mail.

Please note that these documents are considered predecisional and should not be shared with anyone outside your organization.

Thx,

Linda



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Steve Smith, Principal Safety Engineer
Department of Industrial Relations
Division of Occupational Safety and Health
2424 Arden Way, Suite 495
Sacramento, California 95825

FROM: Lisa Ross, Ph.D.
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

[Original signed by L. Ross]

DATE: June 15, 2015

SUBJECT: PRE-NOTICE COMMENTS ON THE DEPARTMENT OF PESTICIDE
REGULATION'S PROPOSAL PERTAINING TO FIELD FUMIGANT USE
REQUIREMENTS

The Department of Pesticide Regulation (DPR) proposes to amend 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

Attached for your review is the draft Notice of Proposed Action, the Initial Statement of Reasons, and the Text of the Proposed Regulation. The Department of Industrial Relations has participated in DPR's Worker Safety Regulations Work Group to discuss and comment on regulation development as it pertains to pesticides and worker safety issues. In accordance with our consultation requirements in Food and Agricultural Code section 12980, we request your review of the enclosed documents and would appreciate receiving comments on or before June 26, 2015.

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford of the Enforcement Branch at (916) 324-4297.

Attachments

cc: George Farnsworth, DPR, Enforcement Branch
Pam Wofford, DPR, Enforcement Branch
Linda Irokawa-Otani, DPR
Charlene Martens, DPR, Worker Health and Safety Branch
Harvard Fong, DPR, Worker Health and Safety Branch



State of California
Division of Occupational Safety and Health

Memorandum

To: Lisa Ross, Chief
Department of Pesticide Regulations
Worker Health and Safety Branch

Date: June 26, 2015


From: Steve Smith, Principal Safety Engineer
Division of Occupational Safety and Health

Subject: Pre-Notice Comments on DPR's Proposal Pertaining to Field Fumigant Use Requirements.

This memorandum is written in response to your June 15, 2015 request for the Division of Occupational Safety and Health's (Division) review of your draft proposed changes to your Title 3 regulations regarding Field Fumigant Use Requirements. We support DPR's efforts to for achieving and maintaining federal ambient air quality standards for ozone, and as such reduce pesticidal sources of VOCs.

To ensure the proposed amendments are consistent with existing regulations and provide equivalent safety to Title 8, we recommend the following:

1. DIR has concerns about the proposed deletions of existing Title 3 language for all five fumigant active ingredients (methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium)) with regards to requirements associated to buffer zone restrictions, soil moisture and tarpaulin repair. Although the updated labels might cover some general information, the Division was not provided with any sample language of how a label addresses the issue and does not know if the labels contain as effective guidance as the current level of detail present in the existing regulatory language. Thus, we are concerned that the entire deletions of these requirements will not provide equivalent safety to existing regulations.
2. DIR supports DPR's proposed revisions which increase the minimum number of days in which the tarpaulin must not be cut or perforated (from five to nine), and with the modification associated with the removal of prohibited application methods.
3. DIR is also in support of DPR's proposed revisions which clarify buffer zone requirements when fumigating near a school property.

If you or your staff have questions or need further clarification on any of the comments we provided, you may contact Amalia Neidhardt or myself at 916-574-2993.

cc: Amalia Neidhardt



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Mr. Steve Smith, Principal Safety Engineer
Department of Industrial Relations
Division of Occupational Safety and Health
2424 Arden Way, Suite 495
Sacramento, California 95825

FROM: Lisa Ross, Ph.D. *LR*
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

DATE: July 2, 2015

SUBJECT: DEPARTMENT OF PESTICIDE REGULATION'S RESPONSE TO COMMENTS
ON THE PROPOSED AMENDMENT TO CCR TITLE 3 PERTAINING TO
FIELD FUMIGANT USE REQUIREMENTS

Thank you for your review of DPR's proposed amendments to California Code of Regulations Title 3, sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784; Field Fumigant Use Requirements. This memorandum is written in response to your comments, dated June 26, 2015, on these proposed changes. In your comments you expressed concern that updated labels may not provide equivalent safety as the current regulations for the five fumigant active ingredients (methyl bromide, 1,3-Dichloropropene, chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium)).

Food and Agricultural Code section 12973 states that use of a pesticide shall not be in conflict with the label. The revised fumigant labels contain the same requirements and therefore are equally protective as in current regulation. Therefore, it is not necessary to repeat the requirement in regulation and in fact may cause confusion in implementation of label requirements in the field. Attached are excerpts from fumigant labels of the sections that address the worker protection language that has been removed from the regulations. In addition and for your reference, examples of current fumigant labels in their entirety are located at: http://www.cdpr.ca.gov/docs/emon/fumigants/fum_labels.

If you or your staff have questions or need further clarification on our response to your comment, please contact Pam Wofford, Environmental Program Manager, Environmental Monitoring Branch at 916-324-4297, or Pam.Wofford@cdpr.ca.gov

Attachment



Mr. Steve Smith

July 2, 2015

Page 2

cc: David Duncan, DPR, Environmental Monitoring Branch

Pam Wofford, DPR, Environmental Monitoring Branch

✓ Linda Irokawa-Otani, DPR

Charlene Martens, DPR, Worker Health and Safety Branch

Attachment

SECTION REGARDING WORKER SAFETY WITH REVISIONS

LABEL LANGUAGE FOR RESPIRATORS

METHYL BROMIDE

When performing tasks with potential for contact with liquid fumigant, all handlers (including applicators) must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant apron,
- Protective eyewear (Do NOT wear goggles), and
- Chemical-resistant footwear with socks.

In addition, when an air-purifying respirator is required under this label's *Directions for Use, Protection for Handlers, Respiratory Protection and/or Stop Work Triggers* section, handlers (including applicators) must wear a:

- NIOSH-certified full-facepiece air-purifying respirator with cartridges certified by the manufacturer for protection from exposure to methyl bromide at concentrations up to 5 ppm (e.g., a 3M air-purifying respirator equipped with 3M Model 60928 Organic Vapor/Acid Gas/P100 cartridges).

IMPORTANT: A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks.

If responding to an emergency when corrective action is needed to reduce air concentrations to acceptable levels, wear an SCBA. Escape-only SCBA respirators must not be used by handlers for responding to emergencies. In addition wear PPE required for potential contact with liquid fumigant.

Observe all User Safety requirements and User safety recommendations as set forth in the supplemental labeling, TOG57-3Rev.B.

1,3-DICHLOROPROPENE

The PPE required when handling liquid fumigant must be immediately available and must be worn if the handler is to perform any handling activity with a potential for liquid fumigant contact.

All handlers (including applicators) must wear a half-face air-purifying respirator (except when handlers are in enclosed cabs or applying the fumigant with equipment that disrupts the chisel trace and seals the soil at the same time, e.g., Yetter applicator) equipped with an organic-vapor (OV, NIOSH approval number prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P or HE, NIOSH approval number prefix TC-84A).

If sensory irritation (tearing, burning of the eyes or nose) is experienced and handlers remain in the application block or buffer zone, handlers must wear at a minimum either:

- A NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A), or
- A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

MITC GENERATING PRODUCTS (Metam-Sodium, Metam-Potassium, Dazomet)

- A NIOSH-certified full-facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate prefilter (Type N, R, P, or HE NIOSH approval number prefix TC-84A) or
 - gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

Cartridges or canisters must be replaced when odor or sensory irritation from this product becomes apparent during use, if the measured concentration of MITC is greater than 6000 ppb (6 ppm), or in the absence of any other instructions or indications of service life, at the end of each day's work period, whichever occurs first.

LABEL LANGUAGE FOR STOP-WORK TRIGGERS

METHYL BROMIDE

RESPIRATORY PROTECTION AND STOP WORK TRIGGERS

The following procedures must be followed to determine whether an air-purifying respirator (full facepiece or gas mask) is required or if operations must cease for any person performing a handling task (except for fumigant site monitoring outside of the buffer zone) as stated in this labeling.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose), then either:
 - A full-facepiece air-purifying respirator must be worn by all handlers who remain in the application block or surrounding buffer zone, or
 - Operations must cease and handlers not wearing a full-facepiece air-purifying respirator must leave the application block and surrounding buffer zone.
- Handlers can remove full-facepiece air-purifying respirators or resume operations if two consecutive breathing-zone samples taken at the handling site at least 15 minutes apart show that levels of methyl bromide have decreased to less than 1 ppm and levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples, a full-facepiece air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced.

- When using monitoring devices to monitor air concentration levels, a direct read detection device, such as an electronic device or a colorimetric device (e.g., Matheson-Kitagawa, Draeger, or Sensidyne) must be used. The devices must have sensitivity of at least 1 ppm for methyl bromide and 0.15 ppm for chloropicrin. Persons using direct read detection devices must follow the manufacturer's directions.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a 10 inch radius of the handler's nose and mouth.
- When full-facepiece air-purifying respirators are worn, air monitoring samples must be collected at least every 2 hours in the breathing zone of a handler performing a representative handling task.
- If at any time: (1) a handler experiences sensory irritation when wearing a full-facepiece air-purifying respirator, or (2) a methyl bromide air sample is greater than 5 ppm or a chloropicrin air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and surrounding buffer zone.
- Handlers can resume work activities without full-facepiece air-purifying respirators if two consecutive breathing-zone samples taken at the handling site at least 15 minutes apart show levels of methyl bromide have decreased to less than 1 ppm and levels of chloropicrin have decreased to less than 0.15 ppm, provided that handlers do not experience sensory irritation. During the collection of air samples a full-facepiece air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where: (1) the irritation was first experienced, or (2) where sample(s) were greater than 5 ppm for methyl bromide or, (3) where sample(s) were greater than or equal to 1.5 ppm for chloropicrin.
- Handlers can resume work activities if all of the following conditions exist provided a full-facepiece air-purifying respirator is worn:
 - two consecutive breathing zone samples for methyl bromide taken at the handling site at least 15 minutes apart each must be less than or equal to 5 ppm.
 - two consecutive breathing zone samples for chloropicrin taken at the handling site at least 15 minutes apart must be less than 1.5 ppm.
 - handlers do not experience sensory irritation while wearing the full-facepiece air-purifying, and
 - filter cartridges have been changed.
 - during the collection of air samples a full-facepiece air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where: (1) the irritation was first experienced, or (2) where sample(s) were greater than 5 ppm for methyl bromide or, (3) where sample(s) were greater than or equal to 1.5 ppm for chloropicrin.

MITC GENERATING PRODUCTS (Metam-Sodium, Metam-Potassium, Dazomet)
Respiratory Protection and Stop Work Triggers

The following procedures must be followed to determine whether an air-purifying respirator is required or if operations must cease for any person performing a handling task (except for fumigant site monitoring outside of the buffer zone) as stated in this label.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose) then either:
 - An air-purifying respirator must be worn by all handlers who remain in the application block or surrounding buffer zone, or
 - Operations must cease and handlers not wearing an air-purifying respirator must leave the application block and surrounding buffer zone.
- Handlers can remove air-purifying respirators or resume operations if two consecutive breathing-zone samples taken at the handling site at least 15 minutes apart show that levels of MITC have decreased to less than 600 ppb (0.6 ppm), provided that handlers do not experience sensory irritation.
- During the collection of air samples, an air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced. When using monitoring devices to monitor air concentration levels, a direct read detection device, such as an electronic device or a colorimetric device (e.g. Draeger, Sensidyne) must be used. The devices must have sensitivity of at least 600 ppb (0.6 ppm) for MITC. Persons using direct read detection devices must follow the manufacturer's directions.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a ten inch radius of the handler's nose and mouth.
- When air-purifying respirators are worn, air monitoring samples must be collected at least every 2 hours in the breathing zone of a handler performing a representative handling task.
- If at any time: (1) a handler experiences any sensory irritation when wearing an air-purifying respirator, or (2) a MITC air sample is greater than or equal to 6,000 ppb (6 ppm), then all handler activities must cease and handlers must be removed from the application block and surrounding buffer zone.
- Handlers can resume work activities without air-purifying respirators if two consecutive breathing-zone samples taken at the handling site at least 15 minutes apart show levels of MITC have decreased to less than 600 ppb (0.6 ppm), provided that handlers do not experience sensory irritation. During the collection of air samples an air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where sample(s) were greater than or equal to 6000 ppb (6 ppm).
- Handlers can resume work activities if all the following conditions exist provided that the appropriate air-purifying respirator is worn:
 - two consecutive breathing zone samples for MITC taken at the handling site at least 15 minutes apart must be less than 6,000 ppb (6 ppm)

Mr. Steve Smith

July 2, 2015

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- Handlers do not experience sensory irritation while wearing the air-purifying respirator, and
- Filter cartridges/canisters have been changed.
- During the collection of air samples an air-purifying respirator must be worn by the handler taking the air samples. Samples must be taken at the location where the irritation was first experienced or where sample(s) were greater than or equal to 6000 ppb (6 ppm).

LABEL LANGUAGE FOR TARP PERFORATION AND REMOVAL

METHYL BROMIDE

TARP PERFORATION AND/OR REMOVAL

IMPORTANT: Persons perforating, repairing, removing, and/or monitoring tarps are defined, within certain time limitations, as handlers (see *Handlers* section), and they must be provided the PPE and other protections for handlers as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides.

- Tarps must not be perforated until a minimum of 5 days (120 hours) have elapsed after the application is complete, unless a weather condition exists which necessitates early tarp perforation or removal (see *Early Tarp Removal for Broadcast Applications Only* and *Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only* requirements).
- If tarps are perforated within 14 days after the application is complete, tarp removal must not begin until at least 2 hours after tarp perforation is complete and 2 consecutive methyl bromide air monitoring samples taken at least 15 minutes apart are less than 5 ppm. Air samples must be taken in the breathing zone of the handler. If the 2 consecutive air monitoring samples indicate that methyl bromide levels are:
 - Less than 1 ppm and no sensory irritation is experienced, no respiratory protection is required to begin tarp removal.
 - Between 1 ppm and 5 ppm, then an air-purifying respirator is required to begin tarp removal.

See the *Respiratory Protection and Stop Work Triggers* and *Personal Protective Equipment (PPE)* sections for additional requirements.

- If tarps are not perforated or removed within 14 days after the application is complete, planting or transplanting may take place while the tarps are being perforated.
- Each tarp panel used for broadcast application must be perforated.
- Tarps may be perforated manually ONLY for the following situations:
 - At the beginning of each row when a coulter blade (or other device which performs similarly) is used on a motorized vehicle such as an ATV.
 - In fields that are 1 acre or less.
 - During flood prevention activities.

Mr. Steve Smith

July 2, 2015

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- In all other instances, tarps must be perforated (cut, punched, poked, or sliced) only by mechanical methods.
- Tarp perforation for broadcast applications must be completed before noon.
- For broadcast applications, tarps must not be perforated if rainfall is expected within 12 hours.
- Early Tarp Removal for Broadcast Applications Only:
 - Tarps may be removed before the required 5 days (120 hours) if adverse weather conditions have compromised the integrity of the tarp, provided that the compromised tarp poses a safety hazard. *Adverse weather* includes high wind, hail, or storms that blow tarps off the field and create a hazard, e.g., tarps blowing into power lines and onto roads. A *compromised tarp* is a tarp that due to an adverse weather condition is no longer performing its intended function and is creating a hazard.
- Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only:
 - Tarp perforation is allowed before the 5 days (120 hours) have elapsed.
 - Tarps must be immediately retucked and packed after soil removal.
- When perforating any tarp that qualifies for a 60% or greater reduction in buffer zone distance following broadcast shank applications:
 - All handlers must wear an air purifying respirator when perforating the tarp; and
 - Tarp removal must not begin until at least 2 hours after tarp perforation is complete and 2 consecutive air monitoring samples taken at least 15 minutes apart are less than 5 ppm methyl bromide. Air samples must be taken in the breathing zone of the handler. If the 2 consecutive air monitoring samples indicate that methyl bromide levels are:
 - less than 1 ppm and no sensory irritation is experienced, no respiratory protection is required to begin tarp removal;
 - between 1 ppm and 5 ppm, then an air-purifying respirator is required to begin tarp removal;

See the *Respiratory Protection and Stop Work Triggers* and *Personal Protective Equipment (PPE)* sections for additional requirements.

See www.tarpcredits.epa.gov for a list of tarps that have been tested and determined to qualify for buffer reduction credits.



Department of Pesticide Regulation



Brian R. Leahy
Director

MEMORANDUM

Edmund G. Brown Jr.
Governor

TO: Mr. Steve Smith, Principal Safety Engineer
Department of Industrial Relations
Division of Occupational Safety and Health
2424 Arden Way, Suite 495
Sacramento, California 95825

FROM: Lisa Ross, Ph.D. *L Ross*
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

DATE: October 26, 2015

SUBJECT: PRE-NOTICE COMMENTS ON THE DEPARTMENT OF PESTICIDE
REGULATION'S PROPOSAL PERTAINING TO FIELD FUMIGANT USE
REQUIREMENTS

The Department of Pesticide Regulation (DPR) sent you a memorandum dated June 15, 2015, requesting comments on the proposed regulations to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

On June 26, 2015, DPR received your comments. We responded to your comments on July 2, 2015. The proposed regulations were made available to the public on August 7, 2015. The public comment period closed on September 23, 2015. Based on comments received, additional changes have been made to sections 6447.2(a) and 6449.1(a)(2).

The Department of Industrial Relations (DIR) has participated in DPR's Worker Safety Regulations Work Group to discuss and comment on regulation development as it pertains to pesticides and worker safety issues. However, the additional changes made to sections 6447.2(a) and 6449.1(a)(2) are not worker safety related. Since, DIR has been asked to provide comments previously in accordance with our consultation requirements in Food and Agricultural Code section 12980, we wanted you to be aware of these additional changes.

I am attaching for your information a copy of the draft Notice of Modifications to Text of Proposed Changes and the Modified Text of the Proposed Regulation. Please note that these documents are considered pre-decisional and should not be shared with anyone outside your organization.



Mr. Steve Smith
October 26, 2015
Page 2

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about the process, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford of the Enforcement Branch at (916) 324-4297.

Attachments

cc: Ms. Donna Marciano, DPR, Enforcement Branch
Ms. Pam Wofford, DPR, Enforcement Branch
Ms. Linda Irokawa-Otani, DPR
Ms. Charlene Martens, DPR, Worker Health and Safety Branch
Mr. Harvard Fong, DPR, Worker Health and Safety Branch



Department of Pesticide Regulation



Brian R. Leahy
Director

Edmund G. Brown Jr.
Governor

June 15, 2015

Ms. Lisa Blecker
Pesticide Safety Education Coordinator &
OPIC Coordinator
UC IPM – West Campus
University of California
Davis, California 95616

Dear Ms. Blecker:

The Department of Pesticide Regulation (DPR) proposes to amend 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

Attached for your review is the draft Notice of Proposed Action, the Initial Statement of Reasons, and the Text of the Proposed Regulation. The University of California, Davis, has participated in DPR's Worker Safety Regulations Work Group to discuss and comment on regulation development as it pertains to pesticides and worker safety issues. In accordance with our consultation requirements in Food and Agricultural Code section 12980, we request your review of the enclosed documents and would appreciate receiving comments on or before June 26, 2015.

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about this request, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford of the Enforcement Branch at (916) 324-4297.

Sincerely,

[Original signed by L. Ross]

Lisa Ross, Ph.D.
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

Attachments



Ms. Lisa Blecker

June 15, 2015

Page 2

cc: George Farnsworth, DPR, Enforcement Branch
Pam Wofford, DPR, Enforcement Branch
Linda Irokawa-Otani, DPR
Charlene Martens, DPR, Worker Health and Safety Branch
Harvard Fong, DPR, Worker Health and Safety Branch



University of California
Agriculture and Natural Resources
Integrated Pest Management Program

July 1, 2015

Lisa Ross, Ph.D.
Chief, Worker Health and Safety Branch
1001 I Street
P.O. Box 4015
Sacramento, CA 95812-4015

Dear Ms. Ross:

I have reviewed the Department of Pesticide Regulation's proposal to add to and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert and Ventura ozone nonattainment areas by amending 3 CCR sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784.

I have no comments on this proposal, and support it fully.

Sincerely yours,

Lisa Blecker
Pesticide Safety Education and OPIC Coordinator
University of California
(530) 750-1251



Department of Pesticide Regulation



Brian R. Leahy
Director

Edmund G. Brown Jr.
Governor

October 26, 2015

Ms. Lisa Blecker
Pesticide Safety Education Coordinator &
OPIC Coordinator
UC IPM – West Campus
University of California
Davis, California 95616

Dear Ms. Blecker:

The Department of Pesticide Regulation (DPR) sent you a memorandum dated June 15, 2015, requesting comments on the proposed regulations to amend sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 of Title 3, California Code of Regulations. In summary, the proposed action would add and revise existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and make changes to be consistent with product labeling.

On July 1, 2015, DPR received your response stating you had no comments at the time. The proposed regulations were made available to the public on August 7, 2015. The public comment period closed on September 23, 2015. Based on comments received, additional changes were made to sections 6447.2(a) and 6449.1(a)(2).

The University of California, Davis (UCD), has participated in DPR's Worker Safety Regulations Work Group to discuss and comment on regulation development as it pertains to pesticides and worker safety issues. However, the additional changes made to sections 6447.2(a) and 6449.1(a)(2) are not worker safety related. Since, UCD has been asked to provide comments previously in accordance with our consultation requirements in Food and Agricultural Code section 12980, we wanted you to be aware of these additional changes.

I am attaching for your information a copy of the draft Notice of Modifications to Text of Proposed Changes and the Modified Text of the Proposed Regulation. Please note that these documents are considered pre-decisional and should not be shared with anyone outside your organization.



Ms. Lisa Blecker
October 26, 2015
Page 2

Thank you for your continued participation in the worker safety regulatory process. If you need additional information or have any questions about the process, please contact Charlene Martens from my staff at (916) 445-4261. If you have any questions about the content of the regulations, please contact Pam Wofford of the Environmental Monitoring Branch at (916) 324-4297.

Sincerely,



Lisa Ross, Ph.D.
Environmental Program Manager II
Chief, Worker Health and Safety Branch
(916) 324-4116

Attachments

cc: Ms. Donna Marciano, DPR, Enforcement Branch
Ms. Pam Wofford, DPR, Environmental Monitoring Branch
Ms. Linda Irokawa-Otani, DPR
Ms. Charlene Martens, DPR, Worker Health and Safety Branch
Mr. Harvard Fong, DPR, Worker Health and Safety Branch

STATEMENT OF MAILING NOTICE
(Section 86 of Title 1 of the California Code of Regulations)

The Department of Pesticide Regulation confirms that it complied with the provisions of Government Code section 11346.4(a)(1) through (4), regarding the mailing of the notice of proposed regulatory action. The notice was mailed on August 5, 2015 over 45 days prior to the end of the public comment period. Interested parties that had requested notification via e-mail were also notified on August 6, 2015, over 45 days prior to the end of the public comment period.

DEPARTMENT OF PESTICIDE REGULATION

A handwritten signature in blue ink, appearing to read "Linda Irokawa-Otani", is written over a horizontal line.

Linda Irokawa-Otani
Regulations Coordinator

California Rural Legal Assistance Foundation

MAIN OFFICE

2210 "K" Street, Suite 201
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(916) 446-7904 Fax: 446-3057

Amagda Pérez, Esq.
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Mark S. Schacht
Deputy Director

Kirsten H. Hill, Esq.
Associate Director

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--Sustainable Rural Communities

September 23, 2015

Linda Irokawa-Otani
Regulations Coordinator
Department of Pesticide Regulation

RE: Comments on Field Fumigation regulation proposal 15-002
Proposed SIP amendments regarding pesticide emissions

Via email: dpr15002@cdpr.ca.gov

Dear Ms. Irokawa-Otani:

Thank you for providing this opportunity to comment on proposed revision to the Ozone State Implementation Plan (SIP) for regulating pesticide emissions to prevent smog formation. These comments have been prepared by California Rural Legal Assistance Foundation and California Rural Legal Assistance Inc. and are supported by 44 additional organizations.

The San Joaquin valley deserves equal protection from pesticide air pollution.

The San Joaquin valley has some of the worst air quality in the state and residents suffer from high rates of asthma. High rates of asthma are associated with elevated rates of school and work absenteeism and high medical expenses. Between 2012 and 2013 estimated pesticide VOC emissions in the San Joaquin valley increased from 16.264 to 18.283 tons per day, exceeding the SIP goal by 0.183 tons per day. This triggered requirements for reducing non-fumigant pesticide VOC emissions. Fumigant emissions also represent a significant contribution (22%) of SJV pesticide VOC emissions and 1,3 dichloropropene emissions in the SJV increased 3% between 2012 and 2013. In addition, chloropicrin and the MITC generating fumigants are potent respiratory irritants and both have been shown to aggravate and cause asthma.

In light of the severe air pollution problem and resulting health and economic impacts we remain outraged at the environmental injustice of only requiring 12% pesticide VOC emission reduction for the San Joaquin valley compared to 20% reduction for other California air basins out of attainment. The SIP must be revised to require 20% pesticide VOC emission reduction for the San Joaquin valley to insure parity with other air basins.

Emission ratings for TIF tarps are unrealistically low

DPR granted interim approval for use of Totally Impermeable Film (TIF) tarp fumigation methods several years ago and this approval is due to expire soon. These proposed regulation changes would make approval of these TIF tarp fumigation methods permanent and allow the emission reductions from using TIF tarps for 1,3 dichloropropene and chloropicrin fumigations to be applied to meeting SIP requirements.

In previous comments we have objected to the emission ratings (% emission reduction) assigned to fumigation methods using standard tarps because these emission ratings were derived from a handful of studies on small acreages and have not been adequately validated under real world conditions where tarps may not be installed perfectly and are subject to damage by wind, animals or bubbles of fumigant gas and environmental conditions such as higher soil temperatures may increase emissions.

A recent 2013 Monterey county incident¹ illustrates how tarp failure can and does occur. 48 of 53 field workers harvesting raspberries experienced symptoms (consistent with chloropicrin exposure) when strong winds blew tarps off a recently fumigated field that was about 420 feet from their work site. The fumigant had been introduced the previous day with fumigation completed around 2:00 pm. The crew began harvesting in raspberry hoop houses around 6:30 am the next day. Around 2:00 pm a worker noticed a bubble in the tarped field. According to weather data, winds that day reached 9.6 mph at 2:00 pm. The field was located in a valley, where wind speeds may have been higher. The bubble became a large tear, and the crew noticed an odor in the air. The type of tarp (TIF or standard) is not indicated in the PISP database.

While we acknowledge that data indicates that use of TIF tarps should reduce emission of chloropicrin and 1,3 dichloropropene to some extent compared with use of standard tarps, we dispute the validity of the very low emission ratings of 7% assigned to all chloropicrin TIF tarp fumigation methods, 10% assigned to broadcast 1,3 dichloropropene TIF tarp methods and 21% assigned to 1,3 dichloropropene TIF tarp deep injection broadcast strip fumigations.

We also question the validity of the 10% emission rating for 1,3 D shallow and deep broadcast fumigations using TIF tarps because it is based on results of a study in which TIF tarps were not cut until 10 or 15 days after application while the proposed regulation allows the tarp to be cut after 9 days.

The fumigant VOC emission ratings used to calculate the inventory are not credible and underestimate true emissions. Assigning unrealistically low emission ratings with use of TIF tarps compounds the problems in the emission inventory.

As an added concern, DPR has yet to complete the process to certify which TIF tarps maintain integrity under wet conditions though a DPR official has stated that this

¹ CDPR PISP Database: Incident 52-Mon-13

certification should be in place by the end of this year.²

Concerns with proposed changes to methyl bromide regulations

This proposal would allow TIF tarp use with methyl bromide for the first time, presumably so these tarps could be used with products that also contain chloropicrin or 1,3 dichloropropene. TIF tarp use would not result in any methyl bromide buffer zone or emission rating reduction which is appropriate because study results are characterized by DPR scientists as limited and variable with some data showing essentially no difference compared to non-TIF tarps.

This VOC fumigant regulatory proposal would delete the methyl bromide buffer zone table referenced in the regulations with the justification that this information is now on the labels. We object to this change on the grounds that the California specific label could be changed without opportunity for public comment or involvement by OEHHA in evaluation of the effect on worker safety. Furthermore, the larger California specific methyl bromide buffer zones are only included in web links provided on the labels and the Great Lakes Terro-gas labels include a link to an out of date DPR document rather than the current DPR methyl bromide buffer zone tables. It is vitally important to maintain the buffer zone tables in the regulation.

We also oppose the proposed deletion of the respiratory protection language from the regulation because the California label could be changed without opportunity for public comment or involvement by OEHHA of review of the effect on worker safety.

Exposure of Tarp Cutters and Tarp Removers to methyl bromide and 1,3 dichloropropene not evaluated

We are concerned that DPR hasn't evaluated methyl bromide exposure levels to tarp cutters, removers and hole burners after the 9 days when tarps can be cut and the subsequent day when they can be removed. Since data on methyl bromide emissions using TIF tarps is limited and variable and some studies indicate that methyl bromide does not degrade in soil, we are concerned that exposure when cutting TIF tarps after 9 days could be higher than when cutting standard tarps after 5 days. For added protection we recommend limiting work hours for cutting or removing TIF tarps to 3 hours per day from fields treated with products containing more than 50% methyl bromide and requiring an aeration period of 48 hours after tarp cutting for these applications. We do not recommend relying on respirators for reducing exposure to methyl bromide because we have concerns about efficacy of the cartridges labeled for methyl bromide use that we have detailed in previous comments.

We are also concerned that exposure of tarp cutters, tarp removers and hole burners to 1,3 dichloropropene has not been evaluated and we recommend a requirement of use of full-face respirators for this work.

² Randy Segawa, personal communication

Broadcast application rate vs. treated area application rate

The ISR states that DPR is proposing to replace "application rate" with "broadcast equivalent application rate" in multiple sections of the regulations because the latter is used to calculate VOC emissions from strip and bedded applications.

However, the proposed changes in regulation could be interpreted to make the broadcast equivalent rate the maximum application rate. This is not acceptable because maximum application rates and at least some fumigation buffer zone requirements are based on the treated area application rate. The proposed change in section 6448.1a would allow a 1,3 D broadcast equivalent rate of 332 lb/acre for any method which would increase the maximum allowable application rates in the treated portions of the field for bedded applications of 1,3 dichloropropene.

In addition, it doesn't follow that for the strip fumigation applications in proposed changes to section 6448.1d the maximum broadcast equivalent rate would be 210 lb/acre when the maximum broadcast equivalent application rate is set at 332 lb/acre earlier in section 6448.1a.

Conclusion

The emission factors that DPR is proposing for TIF tarp field fumigation methods will underestimate emissions because they are not credible under real world pesticide use conditions. Reducing use of fumigants and other high VOC pesticides is the only reliable way to reduce emissions and DPR and other state agencies need to work together to help farmers transition to safer, less polluting methods of controlling soil borne pests. We hope you will carefully consider these comments. Please contact Anne Katten of CRLA Foundation if you have any questions.

Sincerely,



Anne Katten,
California Rural Legal Assistance Foundation
akatten@crlaf.org

Michael Meuter
California Rural Legal Assistance Inc.

Sarah Aird
Californians for Pesticide Reform

Pamela Miller
Alaska Community Action on Toxics

Lisa Arkin
Beyond Toxics

Karuna Jaggar
Breast Cancer Action

Jane Williams
California Communities Against Toxics

Nan Wishner
California Environmental Health Initiative

Amy Vanderwarker
California Environmental Justice Alliance

Gail Wadsworth
California Institute for Rural Studies

Debbie Reyes
California Prison Moratorium Project

Jonathan Evans
Center for Biological Diversity

Caroline Cox
Center for Environmental Health

Lupe Martinez
Center on Race, Poverty & the Environment

Kevin Hamilton
Central California Asthma Collaborative

Cesar Campos
Central California Environmental Justice Network

Maricela Morales
Central Coast Alliance United for a Sustainable Economy (CAUSE)

Dolores Weller
Central Valley Air Quality (CVAQ) Coalition

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Colin Bailey
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Katie Cantrell
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Jeannie Economos
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Bradley Angel
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Kimberly Baker
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Richard Moore
Los Jardines Institute (The Gardens Institute)

Belita Cowan
Lymphoma Foundation of America

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Cesar Lara
Monterey Bay Central Labor Council

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Occidental Arts and Ecology Center

Maricela Mares-Alatorre
People for Clean Air & Water of Kettleman City

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Physicians for Social Responsibility-Los Angeles

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September 23, 2015

Ms. Linda Irokawa-Otani
Regulations Coordinator
Department of Pesticide Regulation
1001 I Street, P.O. Box 4015
Sacramento, California 95812-4015

Ms. Irokawa-Otani,

The California Strawberry Commission (CSC) welcomes the opportunity to comment on the proposed amendments to the Department of Pesticide Regulation's (DPR) regulations pertaining to Field Fumigant Use Requirements (DPR Regulation No. 15-002). The Commission represents the interests of the state's 400 growers, shippers, and processors of strawberries.

The CSC supports the proposed amendments to the Field Fumigant Use Requirements. These amendments fulfill two purposes; the adoption into regulation of interim fumigation methods in areas of the state designated as Non-Attainment Areas (NAA) for volatile organic compound (VOC) emissions, and an effort by DPR to harmonize DPR's field fumigant regulations with the 2012 revisions to federal labels for fumigants, to the extent possible.

With respect to the adoption of the interim fumigation methods, after reviewing data the DPR Director determined that the use of totally impermeable film (TIF) tarpaulins for some of the low emission fumigation methods met the emission rating standard for those methods established in California Code of Regulation (CCR) Section 6452 and therefore TIF could be used in the San Joaquin Valley, Ventura and Southeast desert NAAs from May 1 to October 31 each year in association with specific methods on an interim basis. Under Section 6452 the approval for use of interim methods would expire after three years if not adopted into regulation and this rulemaking action assures that these methods may continue to be used. The CSC supports this adoption as the use of TIF, emission reducing, tarps not only will result in equivalent or lower overall VOC emissions, but has also been proven effective in lowering peak emissions, which in some cases can reduce the risk of off-site exposures.

The approval of revised labels for methyl bromide, chloropicrin and metam sodium in 2012 created some overlap of label requirements with the requirements of DPR's field fumigant regulations and County Agricultural Commissioners' Restricted Materials Permit conditions. While it is well understood that in cases of conflict the most stringent requirements must be followed, the existence of three sets of requirement language creates a complicated maze through which the regulated community must navigate. DPR took the first step to facilitate compliance by issuing revised permit guidance for the Agricultural Commissioners in 2013. This second step, harmonizing the language and requirements of the regulations with the labels to the extent possible, is welcomed.

Sincerely,

Mark Martinez
Vice President of Public Policy

ENVIRONMENTAL SOLUTIONS GROUP, LLC

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SACRAMENTO, CALIFORNIA 95814-3964
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JAMES W. WELLS
PRESIDENT
Email: jwells@esgllc.net

September 23, 2015

Ms. Linda Irokawa-Otani
Regulations Coordinator
Department of Pesticide Regulation
1001 I Street, P.O. Box 4015
Sacramento, California 95812-4015

Re: Comments on Notice of Proposed Regulatory Action and Notice of Public Hearing on Proposed Amendments to Title 3. California Code of Regulations (CCR) Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784 Pertaining to Field Fumigant Use Requirements

Ms. Irokawa-Otani,

Please accept these comments on the proposed regulation on behalf of my client, the Pesticide AgSIP Workgroup (The Workgroup). The Workgroup is an ad hoc organization of commodity group representatives and agricultural industry organizations created specifically to interact with the Department of Pesticide Regulation (DPR), Air Resources Board (ARB) and the US Environmental Protection Agency (USEPA) on volatile organic compound (VOC) issues. Members include: Almond Board of California, California Agricultural Aircraft Association, California Rice Commission, California Cotton Ginners and Growers Association, Responsible Farmers Coalition, California Association of Winegrape Growers, California Fresh Fruit Association, California Walnut Commission, California Farm Bureau Federation, Western Plant Health Association, Western Agricultural Processors Association, and California Association of Pest Control Advisers.

The Workgroup welcomes the opportunity to comment on the proposed amendments to DPR's regulations pertaining to Field Fumigant Use Requirements (DPR Regulation No. 15-002). The Workgroup supports the proposed amendments. As stated in the Initial Statement of Reasons, over the past several years studies have demonstrated that fumigant emissions from application methods utilizing TIF, or *Totally Impermeable Film tarpaulins, which are identical to application methods using standard polyethylene film required in current regulations, meet VOC low emission criteria established by the Department. An additional benefit of the use of TIF is that the tarps are also effective in lowering peak fumigant emissions which can reduce the risk of off-site exposures. These TIF methods have been approved by the Director as interim methods under CCR Section 6452. However, under the same regulation, the interim methods expire three years after approval unless they are adopted into regulation. This rulemaking action will allow these low emission methods to continue to be used under TIF in areas of the state designated as Non-Attainment Areas (NAA) for VOC emissions.


*TIF tarpaulins are those for which labeling assigns a buffer zone reduction credit of 60 percent

While supportive of the amendments in general, the Workgroup wishes to comment specifically on the proposed amendment to Section 6447.2, Methyl Bromide Field Fumigation Buffer Zone Requirements Subsection (a). The proposed amendment eliminates the reference to the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, thereby referring the user to buffer zones specified on the label. However, in determining Methyl Bromide buffer zones on the label, USEPA recognized DPR's longstanding buffer zones and requires users to follow the buffer zones incorporated into DPR regulations. The Workgroup requests that the original language in this section be retained.

In addition to adopting the interim fumigant application methods into regulation, this rulemaking makes several changes to the regulations in order to harmonize the regulations with the most recent federal labels for fumigant products. The approval of revised labels for methyl bromide, chloropicrin and metam sodium in 2012 created some overlap of label requirements with the requirements of DPR's field fumigant regulations. The Workgroup supports changes which remove repetitive language and additional changes which are intended to provide more clarity to the DPR regulations.

Thank you for the opportunity to comment on the proposed rulemaking. If you have any questions please contact me at (916) 443.2793, or jwells@esgllc.net.

Sincerely


James Wells,
President



22 September 2015

Mi

Linda Irokawa-Otani, Regulations Coordinator
dpr15002@cdpr.ca.gov

TriCal, Inc. welcomes the opportunity to comment on the proposed revisions and updates to DPR's Volatile Organic Compound (VOC) regulations, specifically the Field Fumigant Use Requirements. TriCal is a registrant and custom applicator of fumigant products within the State of California, and we have been impacted by the VOC regulations since their initial implementation in 2008 in all of the state-designated VOC emissions Non-Attainment Areas (NAAs).

Overall, TriCal supports the proposed amendments to the Field Fumigant Use Requirements. Adopting into regulation the interim fumigant use methods will secure grower access to these application methods. Of particular interest to TriCal are all of the TIF tarp-based methods for any fumigant, as well as the non-tarped deep strip and GPS-targeted methods for chloropicrin. Collectively, these methods will result in equivalent or lower overall peak and total (VOC) emissions, and are valuable tools that need to remain viable options for growers.

In addition, TriCal agrees, in principle, with DPR's attempt to harmonize DPR's field fumigant regulations with the federal ("Phase II") fumigant labels that were issued in 2012. Overlapping state regulations, County permit conditions, and federal label language creates a multi-layered labyrinth through which the regulated community must navigate. As such, harmonization of these various sets of rules and regulations is welcomed.

TriCal wishes to comment on one specific section of the proposed changes to these regulations.

1. Under section **6447.2. Methyl Bromide Field Fumigation Buffer Zone Requirements**. Subsection (a) reads, *"The commissioner shall set buffer zone sizes and durations based upon local conditions. The commissioner may not allow a buffer zone that is smaller or a duration that is less in permit conditions than those in Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, hereby incorporated by reference specified on the label."*

The elimination of the reference to the "Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10" is problematic. Because DPR's successful implementation of methyl bromide regulations pre-dated the federal Phase II label changes by many years, the USEPA gave special consideration to end-users in California. Specifically, the federal methyl bromide field fumigant labels state that, in California, the label buffer zones do not apply, and that end-users in California must refer to, and use, the DPR's methyl bromide regulations. The federal label buffer zones for methyl bromide products were developed by the USEPA from a

nation-wide perspective, and are significantly different than those in use in California since the early 2000s. To change the basis for buffer zones at this time would not only create confusion, it would incur severe hardships for growers. TriCal requests that DPR consider keeping the text as it was, for the reasons explained.

TriCal appreciates the opportunity to comment on these proposed changes to the DPR's VOC regulations. Please contact me if there are any questions or concerns,

Best Regards,

A handwritten signature in cursive script that reads "Michael Stanghellini".

Michael S. Stanghellini, Ph.D.
Director of Research

THE CHLOROPICRIN MANUFACTURERS' TASK FORCE

c/o Niklor Chemical Co., Inc., 1667 Purdy Avenue, Mojave, CA 93501

Telephone (661) 824-2494 Fax (661) 824-2904

September 23, 2015

Via Electronic Mail (dpr15002@cdpr.ca.gov)

California Department of Pesticide Regulation

1001 I Street

P.O. Box 4015

Sacramento, CA 95812-4015

Attn: Linda Irokawa-Otani, Regulations Coordinator

Re: DPR Notice of Proposed Regulatory Action to Amend Various Sections of Title 3
California Code of Regulations Regarding Pesticide Emissions in the Sacramento Metro,
San Joaquin Valley, South Coast, Southeast Desert, and Ventura Nonattainment Areas

Dear Ms. Irokawa-Otani:

I am writing on behalf of the Chloropicrin Manufacturers' Task Force ("CMTF") regarding the above-referenced proposed regulations. The CMTF represents registrants of chloropicrin, a preplant soil fumigant. The CMTF appreciates the opportunity to provide comments on the proposed regulations. The CMTF generally supports the Department's goals to (1) harmonize its regulations regarding the application of chloropicrin and other fumigants with the federal labels recently amended by the reregistration of certain soil fumigants including chloropicrin; and, (2) codify in DPR's regulations certain low-emission application methods.

Harmonization with Federal Labels

The CMTF supports the proposed changes to amend the Department's regulations to harmonize them with the federal pesticides labels as recently amended and approved by USEPA. Under the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), USEPA conducted reregistration of certain soil fumigants and in that process updated the soil fumigant labels to incorporate various application practices that provide additional protections and reduce emissions. Simplifying the Department's regulations to remove repetitions will eliminate potential confusion and improve compliance, thereby benefiting applicators, growers and bystanders.

Additional Approved Application Methods

The CMTF also supports the proposed amendments to add certain application methods as approved methods in the regulations. Pursuant to the Department's regulations, each of these application methods was submitted to DPR for evaluation along with scientific data showing that the emissions from the specified method are not greater than the methods included in the current regulations. These additional methods increase flexibility for growers in managing their crops and decrease the emissions from the application of chloropicrin, benefiting applicators, growers and bystanders.

California Department of Pesticide Regulation
September 23, 2015
Page 2 of 2

The CMTF appreciates the opportunity to comment on these proposed regulations. If you have any questions, please contact me at the above number.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. Wilhelm', with a stylized flourish at the end.

Stephen Wilhelm
Chairman
Chloropicrin Manufacturers' Task Force

STATE OF CALIFORNIA
DEPARTMENT OF PESTICIDE REGULATION
PUBLIC HEARING

NOTICE OF PROPOSED REGULATORY ACTION

AND

NOTICE OF PUBLIC HEARING ON A PROPOSED OZONE STATE
IMPLEMENTATION PLAN AMENDMENT REGARDING PESTICIDE EMISSIONS
IN THE SACRAMENTO METRO, SAN JOAQUIN VALLEY, SOUTH COAST,
SOUTHEAST DESERT, AND VENTURA NONATTAINMENT AREAS

TUESDAY, SEPTEMBER 22, 2015

KERN AGRICULTURAL PAVILION

3300 EAST BELLE TERRACE

BAKERSFIELD, CALIFORNIA

CALIFORNIA REPORTING, LLC

52 LONGWOOD DRIVE

SAN RAFAEL, CA 94901

Reported by:

Martha L. Nelson

APPEARANCESSTAFF

Pam Wofford, Environmental Monitoring Program Manager 1

Daniel Rubin, Staff Counsel

PUBLIC COMMENT

Sal Partida, Committee for a Better Arvin

Jose Chavez

Cesar Aguirre

Valerie Gorospe, Center on Race, Poverty and the Environment

P R O C E E D I N G S

PROCEEDINGS BEGIN AT 6:02 P.M.

MR. RUBIN: It's after 6:00, so the hearing will please to come order.

Good evening. My name is Daniel Rubin. Can everybody hear me all right? Yes? Okay. I'm a Staff Attorney for the Department of Pesticide Regulation, and I will be the hearing officer this evening.

For the record, it's September 22nd, 2015 at 6:00 p.m. We are at the Kern Agricultural Pavilion located at 3300 East Belle Terrace in Bakersfield, California.

This hearing is being recorded by Marlee Nelson of California Reporting. The transcript of the hearing will become part of the rulemaking record.

The hearing is being translated from English to Spanish and from Spanish to English by Carlos Dias de Leon of Quality Interpreting and Translation Service. I think we got everybody. But if anyone needs translation assistance, we have headphones available at the back table over there.

The director of the Department of Pesticide Regulation has called this hearing to receive public comments on a proposed rulemaking action. The Department of Pesticide Regulation proposes to amend Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, 6452.2, and 6784 of Title 3 of the California Code of

1 Regulations. The proposed action would add and revise
2 existing field fumigation methods in the Sacramento Metro,
3 San Joaquin Valley, South Coast, Southeast Desert, and
4 Ventura Ozone nonattainment areas when using methyl bromide,
5 1,3-D, chloropicrin, metam-sodium and metam-potassium, and
6 make changes to be consistent with product labeling.

7 Tonight, of course, we will be taking public
8 comments on these proposed rules. If you plan to submit a
9 comment, if you have not already, please sign in on the
10 attendance register in the front of the room and please
11 indicate if you wish to comment.

12 Before we take comments we're going to begin with
13 a staff presentation outlining the proposed rules. Pam
14 Wofford from our Environmental Monitoring Program is going
15 to give the presentation. After that we'll leave some time
16 for questions, specifically on the presentation. And then
17 we're going to open it up for comments.

18 So unless there are any questions, I'm going to
19 turn it over to Pam.

20 MS. WOFFORD: I don't know if -- can you guys hear
21 me, because I was going to stand and talk rather than -- oh,
22 so I do need the microphone? I'm sorry. Okay.

23 (Colloquy)

24 MS. WOFFORD: So if I sit right in front, can you
25 guys still see over me? Yeah? Okay.

1 So as Daniel said, my name is Pam Wofford --

2 MR. RUBIN: Yeah. We'll just pull this one out.

3 MS. WOFFORD: Does that work?

4 MR. RUBIN: And then, yeah, if you can --

5 MS. WOFFORD: Does that work? Okay.

6 MR. RUBIN: Thanks.

7 MS. WOFFORD: Thank you.

8 My name is Pam Wofford. I'm with the
9 Environmental Monitoring Branch in the Department of
10 Pesticide Regulation. And I wanted to kind of briefly go
11 over what these proposed regulations are.

12 So it's -- oops.

13 So as a background, here in the valley everybody
14 knows there are problems here in California, certain areas
15 with pollution. And one of the major components of
16 pollution here in California is ozone. And ozone is made
17 up, in part, from a reaction with sunlight with volatile
18 organic compounds and nitrous oxide. So from now on I will
19 be referring to the volatile organic compounds as VOCs. But
20 in several areas in California they actually exceed the
21 Federal Ozone Air Quality Standards. So -- and many of
22 those sources of VOCs, we're always getting asked, well, I
23 mean, what do pesticides have to do with VOCs?

24 There's actually many sources including cars,
25 which everybody knows, dairy, methane. But actually, VOCs

1 in their formulations, the AIs (phonetic) have VOCs, and
2 also the formulations and the inerts contribute to the VOC.
3 So that is why it's part of the program to reduce the VOC
4 content for all products in California.

5 Another source for ozone is the NOx which actually
6 comes from engines, from heavy-duty engine vehicles, but
7 none of that is related to pesticides. Pesticides do not
8 contribute to the NOx emissions, just to the VOCs. So
9 that's why when we're talking about the regulation, it's all
10 referring to the volatile organic compound content of
11 products.

12 So as I mentioned, here in California there's
13 actually five areas that are out of attainment with the
14 Standard Clean Air Act for ozone. There's the Sacramento
15 Metro, the San Joaquin Valley, Ventura, South Coast, and
16 Southeast Desert. So keep those in mind when I'm talking
17 about this because the fumigation methods, these different
18 areas, depending on how much we need to reduce the VOCs, the
19 type of methods that you can use in these areas are -- are
20 controlled and prohibited.

21 So as part of the State Implementation Plan that
22 is required by the Federal Clean Air Act, each state has to
23 determine how they're going to bring -- what measures
24 they're going to take to bring the state back into standards
25 with the ozone standards. And the SIP is actually under the

1 control of the California Air Resources Board. But as part
2 of that SIP, DPR is required to develop and maintain an
3 emissions inventory to track the pesticide VOC emissions.
4 And we do put out a report every year for that year, what
5 those emission were. We are required to reduce pesticide
6 emissions by specific amounts during May through October,
7 and that's that peak ozone period, so all these regulations
8 are really in place for the time period between May 1st and
9 October 31st.

10 The SIP requires us to also require low-emitting
11 fumigation methods, especially in the areas that need
12 further reductions in the VOC, and also to implement
13 restrictions on non-fumigant pesticides when the emission
14 have exceeded 95 percent of the benchmark, and that's here
15 in the San Joaquin Valley nonattainment area.

16 So for this part, these revisions on these
17 regulations are just dealing with the fumigant regulations.
18 The actually VOC regulations also take into place some non-
19 fumigant here, especially here in the San Joaquin Valley.
20 But this part that we're revising is just dealing with the
21 fumigant regulations. And that's going to cover the methyl
22 bromide, 1,3-D which is also referred to as Telone is one of
23 the brand names, chloropicrin, the MITC generating products
24 of metam-sodium, metam-potassium, dazomat, and sodium
25 tetrathiocarbonate. So it's just dealing with those

1 fumigants.

2 As most people know, the fumigants are actually
3 injected in via tractor prior to planting and to bare soil,
4 or for replant or for -- for orchard replant, for
5 strawberries, for different crops, or it can be applied with
6 water by chemigation through drip, through sprinklers.
7 There is many methods of application for the fumigants.

8 To help reduce the emissions during the May to
9 October ozone season for the fumigations in the
10 nonattainment area that I was talking about, it requires the
11 use of water treatments after fumigation, tarping, or drip
12 chemigation, because we know those all work to reduce the
13 emissions coming off the fumigation.

14 So as I said, the fumigation methods vary with
15 each actual fumigation method that's used. So for each
16 method, we actually have assigned an emission rating for it.
17 So we know how much is coming off through studies from the
18 different methods of application. And those method
19 requirements, they apply in all five of the nonattainment
20 areas from May to October. And that whole set of
21 application methods are what can be used in Sacramento Metro
22 and the South Coast nonattainment areas. But then for the
23 three areas that need further reductions, they're actually
24 required to use only low-emitting methods. And that's in
25 the San Joaquin Valley, the Southeast Desert, and in the

1 Ventura nonattainment areas, so only low-emission methods
2 can be used for fumigant applications.

3 And I want to point out that besides the VOC
4 regulations, that we do still have in place our methyl
5 bromide regulations that apply statewide, our Metam Permit
6 conditions and our Chloropicrin Permit conditions that apply
7 statewide, they're outside of the VOC. They're not for
8 dealing with VOCs. They're more for dealing with exposure.
9 So those are in place all the time outside of the
10 nonattainment areas.

11 So these proposed revisions in 2015 actually are
12 really mainly to add some interim methods that have been use
13 for a couple of years, and to do some cleanup work on the
14 regulations. Part of the original regulations allowed us --
15 if data came up that showed that a new method actually
16 reduced emissions it gave us a chance to get it into place
17 so it could be used, but it required us that within three
18 years we had to get it into regulation or it would expire
19 and no longer be able to be used.

20 So we -- in 2013 we put into place an interim
21 method using TIF tarps. And what TIF tarps, they're called
22 totally impermeable films, or they're also referred to as
23 tarps that receive a 60 percent buffer zone credit reduction
24 by EPA. And through studies we know that these TIF tarps
25 are reducing emissions, actually quite a bit. So we put

1 that one into -- that interim method into place for
2 chloropicrin and 1,3-D in 2013.

3 And then in 2014 we added two strip type methods
4 for 1,3-D, and then chloropicrin. And I'll go into them a
5 little bit more about the decisions on those.

6 But we're also removing language. In 2013, late
7 2013, new labels came out for all the fumigants that
8 actually had a lot of buffer zones, had a lot more
9 mitigations measure on them. And there was a lot of
10 language on those buffer -- on the labels that actually
11 reflected what's in our regulations. So we've gone through
12 our regulations to clean out that language, because on a
13 label makes it the law. So it's a requirement of being on
14 the label, so we were able to take it out of the
15 regulations.

16 And also we did some clarification as part of the
17 regulation revision.

18 So as I said, those interim methods that we want
19 to get in permanently include the TIF tarp application of
20 chloropicrin and 1,3-D. And that one, the low-emission
21 methods can be determined by either knowing that they
22 reduced the emissions coming out during application, or that
23 using the rate that we have for our method, and if they're
24 reducing the application rate down to a point, they could be
25 determined to be a low-emission method by that calculation

1 also.

2 So the TIF tarp applications actually were put in
3 as a low emission because they do reduce emissions by quite
4 a bit. But there is a deep shank, non-tarp, strip
5 application for chloropicrin and 1,3-D, and a non-tarp,
6 strip, and GPS targeted chloropicrin application that were
7 put in at interim methods, because by reducing the rate, by
8 just doing a strip, is there a strip is done and then an
9 area is left untreated, and then another treatment area
10 actually reduced the rate of application down to a point
11 where it would also be considered a low-emission method.

12 So as part of the cleanup part of the regulations,
13 like I said, we're removing language from the regulations
14 that are present on the labels. Some examples of that
15 are -- they have on the labels now how to determine moisture
16 content by a feel method. So we have that in our
17 regulations, so now we're going to be removing that just to
18 kind of clean it up.

19 There's also for some of the methods a description
20 of injection depth. And those being on the label then makes
21 it a requirement that they have to be placed at a certain
22 depth.

23 Also, there were some methods that are no longer
24 on labels, so we removed those from our regulations such as
25 the methyl bromide, non-tarp, shallow bed.

1 So generally it was a cleanup. The language
2 pretty much had to be exactly what it was on the label for
3 us to remove it from our regulations.

4 Then -- so examples of what I'm calling
5 clarification, it's -- when we did -- from the labels we've
6 actually also, with our permit conditions, made some changes
7 to -- that aren't reflected on the labels. So we wanted to,
8 in our regulations, see some clarification.

9 As far as for the TIF applications with those
10 tarps that get the reduction, we actually needed to remove
11 the restriction of the use of that tarp. Because in our
12 regulations we had mentioned nothing less than five
13 milliliters per hour permeability could be used for a tarp,
14 could be used with methyl bromide. And we know that these
15 tarps are working and so -- to help reduce those emissions,
16 so we've had to take that out. And the reason we had that
17 in the first place was we did not, at the time when we
18 made -- wrote those regulations we weren't sure what was
19 going to be happening at the cut time, the time when
20 actually those tarps were cut, perforated so they could be
21 removed.

22 And so now with the tarp -- the TIF tarps we know
23 that we needed to extend that time for the tarp cut to allow
24 the fumigants to break down more in the soil. So that was
25 another clarification point. And in the regulations we

1 added that they needed to increase the time, the cut time,
2 from five days to nine days. So there was a lot of just
3 kind of basic clarification to make sure that our
4 regulations reflected also our permit conditions that we
5 have for methods.

6 Also, too, on the label they referred to a
7 broadcast equivalent for an application rate which is when
8 you have strip applications if that application is actually
9 used for the entire area. So we wanted to reflect that in
10 the regulations.

11 And we went through and did a lot of cleanup on
12 "shalls" and "musts" to give it a lot more strength in the
13 regulation language.

14 So basically, that's pretty much the changes that
15 have been made. There's -- it's not a lot that has been
16 changed. The interim methods have already been in place for
17 a couple of years. We're just making them permanent, and
18 then just kind of a basic cleanup of the language.

19 So if you have -- if you would like any additional
20 information on the regulations you can go to our website.
21 We have them posted there. Go under the Air tab, and then
22 go into the Volatile Organic Compound Emissions to
23 Regulatory Issues. And if you also want to send in any
24 written comments you can either send them by mail to Linda
25 Irokawa-Otani, or send them by email, dpr15002@cdpr.ca.gov.

1 So -- and we welcome any comments and any questions.

2 So I guess if you have any questions on the text
3 in the revisions, I can take those now, or we can go to
4 comment. Okay.

5 MR. RUBIN: All right. Thanks, Pam.

6 So before we take comments, I'm just going to give
7 a really brief procedural background on these proposed
8 regulations, and just lay a few ground rules for the
9 comments.

10 So tonight's proceeding is an official
11 governmental proceeding provided for in the rulemaking
12 provisions of California -- of the California Administrative
13 Procedures Act under California Government Code section
14 11346. This hearing is intended to allow members of the
15 public an opportunity to participate in the rulemaking
16 process by providing your comments on the proposed
17 amendments, and to provide input to the Department, if you
18 have any suggestions on how to improve the proposed
19 rulemaking action and regulation. And finally, it gives you
20 a chance to hear what other people have to say about the
21 proposed action.

22 Those regulations were officially noticed on
23 August 7th, 2015. On that date the Department opened the
24 public comment period. This public comment period is
25 scheduled to close tomorrow, September 23rd, 2015 at 5:00

1 p.m. Written and oral comments will be accepted until that
2 time.

3 For the record, the material that serves as the
4 background for this hearing is called the Rulemaking File.
5 And the Rulemaking File. And the Rulemaking File consists
6 of some of the documents on the back table there, the
7 notice, the proposed text, the initial statement of reasons,
8 the economic and fiscal impact statement, and several
9 documents that are referred to as the documents relied upon.
10 And then, of course, we'll also include a transcript of this
11 hearing.

12 Do you have any questions about the regulation and
13 its process? As I said, there are some handouts at the back
14 of the room. Information is also posted on DPR's website.
15 And you can feel free to discuss any questions you have with
16 DPR staff that's present here today.

17 Before I call our first speaker I would like to
18 take a few minutes, again just to go over some ground rules
19 and talk about the hearing process itself.

20 Each person is entitled to give his or her opinion
21 today. You may not agree with the prior testimony, but
22 please refrain from making personal remarks about other
23 speakers or their -- the content of their testimony. It is
24 important that each person be heard and that the hearing is
25 conducted in a courteous manner.

1 This is considered a formal hearing, however,
2 you're not placed under oath. You're not subject to
3 examination or cross-examination. And this is not an
4 appropriate venue for us to answer questions or engage in
5 dialogue in response to oral testimony. This is not a
6 debate or a town meeting. We respond to all comments after
7 the close of the comment period.

8 As you enter the room there was an attendance
9 register, and you were asked to print your name and indicate
10 whether or not you wish to testify. A box was provided for
11 you to print your address. If you provided your address DPR
12 can notify you of any changes to the proposed text of the
13 regulations. It is possible that the proposed regulation
14 could be modified in some way, which would require an
15 additional 15-day public comment period. If DPR modifies
16 the proposed text we will notify in writing those people who
17 have submitted written comments, and those of you who have
18 provided names and addresses on the hearing register. We
19 will also post -- post the revised text on our website.

20 Testimony will be taken from public witnesses in
21 the order that they had registered. When you are called to
22 speak, please come forward to this microphone so that your
23 comments can be entered into the record. Please state and
24 spell your name for the benefit of the transcriber. And
25 then you may proceed with your testimony.

1 It is most helpful to us if you would direct your
2 testimony specifically to the content of the regulations.
3 Focus on what changes you -- you would make to improve them.
4 In addition, if there are elements of the regulation that
5 you are particularly supportive of, please let us know. You
6 may also, as we've said, submit written testimony. And you
7 can go to any staff member present here today or by -- to
8 the email address that has been provided. And please
9 understand that, of course, equal weight is given to both
10 oral and written testimony.

11 Just to keep things moving along, when I call
12 someone up I'll also announce the name of the next person.
13 Do we have any questions about the process today? All
14 right. Well, then let's go ahead and get started.

15 The first witness is Sal Partida. And the next
16 witness will be Jose Chavez.

17 MR. PARTIDA: Hello. You can hear me? Hello.
18 You can hear me now? Yes, you can, huh?

19 My name is Sal Partida. I'm the President of the
20 Committee for a Better Arvin. And we've been working with
21 the Commissioner for some time now. And now that you guys
22 are giving us the opportunity of speaking in regards to the
23 concerns of the public and our community, we are here to do
24 that.

25 And one of the items that kind of concerns us is

1 the kind of chemicals that are being sprayed out here
2 nowadays. And we feel that those chemicals should be
3 changed to maybe modify to a more sensitive type of
4 chemical. There's some chemicals like the gramite
5 (phonetic) or whatever, how you pronounce it, needs to be
6 modified to something more friendlier. And whatever
7 chemicals that are harming our people should be modified. I
8 mean, we're not saying do away with it completely, but let's
9 find something.

10 The technology nowadays is -- is way open. People
11 here are learning new ways of doing it, these kids and
12 college and all that, they should bring something more
13 friendly to the table and let's start using that kind of
14 thing. Because being sprayed with something hard like that
15 bromide thing is not a good feeling. And most of our people
16 there in Arvin have a story to tell about being sprayed over
17 with a plane or something else.

18 We'd like to see that -- that we can work together
19 with you guys, and let's make it workable. Let's make it so
20 we can live and spray at the same time, but give us a
21 chance. Give us a little more -- more leeway when it comes
22 to schools and -- and the residents. There's some residents
23 in the middle of the -- of the field there and they get
24 sprayed every night. I mean, we need to be concerned with
25 those people because they also have kids. So in the morning

1 they get up like, you know, cockroaches trying to get up,
2 all sprayed and fumigated. We need to be more concerned
3 about those people.

4 The schools, I think they should be -- they should
5 be a mile away from wherever -- whatever sprayer that is out
6 there spraying. Even one of the -- one of the teacher's
7 aide with the kids that she was taking care of got sprayed
8 over at the El Camino Real School in Arvin. I mean, that's,
9 you know, that's not nice for anybody. I mean, I'm sure the
10 guy that's spraying up there didn't feel good when he saw
11 the lady and everybody running because of the spray.

12 So why not adopt a plan that says, you know, at
13 least a mile, because with the draft and everything it can
14 be very close to the -- to the school, and residents --
15 residents' homes, as well. I mean, I don't like to be
16 sprayed at my house or anybody's house. Because we're here
17 in our backyard when they're spraying the lot next door and
18 what happens? We get sprayed. When I called the
19 agricultural commissioner they said, well, it was water and
20 salt. I don't care if it's water and salt, I don't like to
21 be sprayed. I don't care if it's chemical or not chemical,
22 why should I get sprayed when I live at my home and I'm
23 getting sprayed at my home?

24 So we need a buffer zone at least a mile away all
25 around so we don't end up with those predicaments, because a

1 quarter mile, as it is right now for the schools, is too
2 little. When it's windy, that air is going to take that
3 spray way farther than the quarter mile, so the kids are
4 going to get sprayed. Okay?

5 And all the hard chemicals, I think I'd like to
6 see them change to something more softer, easier, even if it
7 takes two spray when it used to be one spray. But let's not
8 kill each other in the process. Okay?

9 Thank you.

10 MR. RUBIN: Thank you, Mr. Partida.

11 Next we have Jose Chavez, followed by Cesar
12 Aguirre.

13 MR. CHAVEZ: (Spanish speaking witness interpreted
14 by Spanish Interpreter.)

15 Good afternoon. My name is Jose Chavez. I am a
16 resident of the city of Arvin. In our valley, in our city
17 we see a lot of problems. My daughter has asthma-type
18 conditions. And then even myself in 2014, I was -- it's
19 going to be a year this August, I was working and a mile
20 away a plane was spraying first dust on the first ground.
21 Then the next day they were spraying some sort of liquid,
22 and about 40 of us got sprayed. And all we were told was to
23 leave the place. And they don't give us anything. Some
24 people started feeling dizzy. And all they did was take us
25 to the shade. So I don't think that regulation is

1 effective. That's just to give you an idea as to how these
2 ranchers don't regulate the pesticides they use.

3 Something else I wanted to mention is that our
4 valley, the Valley of San Joaquin, has a lot of issues
5 already. So if it's 12 percent, then why not increase it to
6 20 percent everywhere. Because with these chemicals that
7 they're spraying from the air, we can't know what it is and
8 what's going to happen if we're outside when they spray
9 these pesticides.

10 I also wanted to talk about being informed about
11 what fumigants they're spraying. Many time we don't know
12 what they are, and each of us reacts differently too. Some
13 of us, you know, might react more harshly, especially
14 children, and I'm a parent of two. Plus I'm very worried
15 because the fields are so close to our homes and to their
16 school. So I would like to ask for the fumigant buffer zone
17 to be at least one mile away from schools to better protect
18 our children.

19 I also wanted to mention a way to help the growers
20 to better control the pesticides when they spray. If there
21 are no -- if there were no regulations they would just spray
22 willy-nilly and we'd see even more diseases than we're
23 seeing now.

24 Thank you.

25 MR. RUBIN: Thank you, Mr. Chavez.

1 Next we have Cesar Aguirre. And then finally
2 Valerie Gorospe.

3 MR. AGUIRRA: Hi. My name is Cesar Aguirre,
4 C-E-S-A-R A-G-U-I-R-R-E, and I come as a concerned citizen.

5
6 People put a lot of importance on their health.
7 You know, it's a very basic need at the bottom of
8 everyone's, you know, hierarchy of needs. And pesticides
9 affect directly or indirectly almost all of our lives
10 because of the food we eat. And it's such a big factor in
11 the basic necessities of regulations of pesticides is very
12 important, almost infinitely, even when it comes to things
13 as -- you know, that seems not to be part of it, like the
14 economy due to healthcare costs and things like that.

15 The San Joaquin Valley does have one of the worst
16 recorded air qualities, you know, in the -- in the State of
17 California. And even so we have a 12 percent regulation on
18 lowering the VOCs, whereas other places in California have a
19 20 percent regulation. I understand the San Joaquin is very
20 large and it would be hard, you know, to dictate the
21 regulations of a place in regards to other -- other sections
22 that are regulated that are much smaller. But San Joaquin
23 Valley is a place that has a great effect because of these
24 pesticides. Almost all the families are effected, like I
25 said, directly or indirectly because of the pesticides,

1 because of the effect, whether it be, you know, economical,
2 to their health, you know, mentally or physically if they're
3 gone through something caused by pesticides, you know, or
4 things of the sort.

5 TIF tarps; TIF Tarps have been mentioned. And I
6 understand that TIF tarps are a good way, you know, to fight
7 the low emissions. But in a little way it is a Band-Aid
8 method to try to control the fumigants. I understand that
9 taking fumigants out of -- out of the question is not
10 something that can be doable, you know, immediately. But I
11 think if we start trying to find solutions, in the long run,
12 little by little, we will be able to try to phase them out
13 because, you know, putting TIF tarps over something that
14 hasn't been tested in real-world applications, you know, in
15 the real world the TIF tarps could get blown off. They
16 are -- animals could make holes in

17 You know, Murphy's Law does not allow, you know, a
18 lot of space for the tarps to be able to be at their most
19 effective, so we have to look at those things. And we have
20 to be able to rationalize whether continuing the use of the
21 fumigants with Band-Aid solutions is more viable to the
22 health of the community than actual problems and trying to
23 phase them out and find new solutions.

24 I've had a couple of people approach me. The --
25 this man approached me at an event that we were having in

1 the Arvin High School. He showed me a video of tractors
2 spraying pesticides during school hours. And he was enraged
3 because the pesticides were, you know, they were okay for
4 them to be sprayed at that time, even though his child was
5 in school. They said that it was unregulated, therefore,
6 you know, there was nothing that they could do about it. I
7 believe he told me that Roundup was one of the -- the
8 chemicals, and Roundup is known to be a carcinogen. So we
9 are exposing all those kids to something that can cause
10 cancer. And saying it's protected, you know, because it's
11 not regulated, it doesn't seem fair, you know.

12 In a government of the people for the people it
13 doesn't seem that the people and the well-being of the
14 community is being taken into consideration. And the basic
15 needs of the community does not seem to be the priority of
16 the people taking care of the regulations.

17 You know, I know it's hard and I know it's hard to
18 fight against corporations and things like that. But as a
19 people we ask you to stand up and represent to us and hold
20 strong to your values to protect the people and protect the
21 well-being. You know, because in the end it will have a
22 positive effect, even on the economy and the buying power of
23 the -- of the community because they'll be spending less
24 money on healthcare and things like that.

25 I've also had -- oh, at that same event they

1 sprayed Roundup while we were having a community event at
2 the high school on the weekend. And us and several people
3 in the room were exposed to the same chemicals. And it's
4 kind of an outrage because there's nothing I can do about it
5 because it's not regulated, even though I know -- I know
6 that me and my family and the people of the community that
7 came because they wanted to take part in a community event
8 to make it a better place, were exposed to the problems that
9 they were trying to fight at the moment.

10 I think it's kind of ironic and sad, too, because
11 my mom has cancer, and she's had various issues with cancer.
12 And she's told me a lot that she has been sprayed before
13 when she would work in the fields. And, you know, I mean, I
14 can't attribute it to that. You know, there's a lot of
15 factors in life. But I would hate to see someone else go
16 through what I've gone through because of that.

17 So I ask you to help, you know, the community and
18 the betterment of the community, you know, as opposed to the
19 betterment of the dollar.

20 So thank you.

21 MR. RUBIN: Thank you, Mr. Aguirre.

22 I think our final commenter is Valerie Gorospe.

23 MS. GOROSPE: Can I stand down here? It's kind of
24 weird.

25 MR. RUBIN: Sure. Let me just make sure you're --

1 MS. GOROSPE: Can you hear me?

2 MR. RUBIN: Okay.

3 MS. GOROSPE: Good evening. My name is Valerie
4 Gorospe. And I'm with the Center on Race, Poverty and the
5 Environment. And I will also be speaking on some of the
6 comments that Cesar commented on.

7 Soil -- so regarding a lot of the fumigants that
8 were -- were discussed earlier, soil fumigants are often
9 applied to soil and large quantities before planting certain
10 crops, including strawberries, sweet potatoes, tomatoes, and
11 sometimes nut and fruit trees, and grapes.

12 In regards to these fumigants, we know that the
13 emissions represent a significant contribution to
14 volatile -- or VOCs here in the San Joaquin Valley, as well
15 as Ventura and the South -- Southern Desert [sic] air
16 basins. But here in the San Joaquin Valley, fumigants made
17 up of -- made of 22 percent of pesticide VOC emissions in
18 2013. And emission of the cancer-causing and VOC fumigant
19 alone increased three percent over the previous year.

20 In 2013, here in the valley, the San Joaquin
21 Valley, we failed to meet the pesticide VOC emission
22 requirements set by the state. Failure to meet Federal Air
23 Quality Standards in the San Joaquin Valley has an economic
24 toll of almost \$6 billion a year in healthcare costs,
25 according to a study by Jane Hall, an economist at CSU

1 Fullerton.

2 Here in the San Joaquin Valley we, you know,
3 everybody knows in this room that we've got some of the
4 worst air quality in the nation. And the rates of asthma
5 deserve equal protection from pesticide air pollution. In
6 light of the severe air pollution problem and resulting
7 health and economic impacts, we remain outraged at the
8 environmental injustice of state pesticide and air quality
9 agencies only requiring 12 percent pesticide VOC emission
10 reduction for the San Joaquin Valley, compared to the 20
11 percent reduction for other California air basins out of the
12 attainment.

13 The San Joaquin Valley failed to meet even this
14 weaker pesticide VOC emission reduction in 2013. The
15 Department of Pesticide Regulation must end this double
16 standard and put in place a 20 percent pesticide VOC
17 emission reduction requirement here in our valley, and
18 strictly enforce it.

19 Tarps; Cesar mentioned the tarps earlier. Even
20 the most high-tech TIF tarps are an unreliable method of
21 controlling the release of volatile fumigants into the air.
22 DPR claims that using TIF tarps will control emissions so
23 that only seven percent of chloropicrin fumigant and ten
24 percent of Telone fumigant applied to the soil will be
25 released into the air. Under this proposed rule, seven to

1 ten pounds of these fumigants, only 7 to 10 pounds of these
2 fumigants will be counted as VOC emissions for every 100
3 pounds applied to the soil. This is based on limited
4 information from small field experiments.

5 In the real world just driving down the 99, you
6 can see that these fumigant tarps leak at the edges. They
7 get blown off the fields by the wind and damaged by animals
8 and bubbles of fumigant and applicators that don't always
9 follow the rules perfectly.

10 Also of concern, DPR yet -- has yet to complete
11 the process to certify which TIF tarps reliable control
12 emissions under wet conditions through DPR claims that this
13 certification should be in place by the end of this year.
14 Through an interim rule this low-emission rates for the TIF
15 tarps were already used in the 2013 pesticide VOC inventory.
16 DPR reported a 44 percent decrease in, and I quote,
17 "adjusted," end quote, pesticide VOC emissions in Ventura
18 due to a widespread use of TIF tarps, tarp methods for
19 applying the fumigant or chloropicrin. The only failsafe
20 way to reduce pesticide fumigant levels in the air is to
21 phase out fumigants. In the meantime, DPR needs to set much
22 higher emission rates that take real-world application
23 conditions into account.

24 I drive on the Highway 99 throughout the week,
25 just about every week, and in rural areas here in Kern

1 County. I have seen damaged or blowing fumigation tarps
2 and/or application mistakes as well. My understanding is
3 that high-tech TIF tarps and regular fumigation tarps look
4 the same out in the fields.

5 DPR needs to help farmers adopt less polluting
6 pest control methods. DPR and the state overall need to
7 substantially expand investment in helping farmers
8 transition to less polluting methods for controlling soil-
9 borne pests. DPR has funded over \$4 million in fumigant
10 alternatives in research since 2012, but much more is
11 needed. It's time to focus research on helping growers
12 transition.

13 Thank you.

14 MR. RUBIN: Thank you, Gorospe.

15 Let's see, did we miss anybody? Is -- does
16 anybody else want to submit a comment this evening? All
17 right.

18 Well, unless there are any further comments, this
19 hearing will now come to a close. Thank you.

20 (The Public Hearing Adjourned at 6:45 p.m.)
21
22
23
24
25

CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 25th day of September, 2015..

A handwritten signature in cursive script, reading "Martha L. Nelson", written in dark ink.

MARTHA L. NELSON

CERTIFICATE OF TRANSCRIBER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.



MARTHA L. NELSON, CERT**367

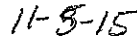
September 25, 2015

STATEMENT OF 15-DAY NOTICE
OF AVAILABILITY OF DOCUMENTS AND INFORMATION
(Government Code section 11347.1)

On November 3, 2015 the Department of Pesticide Regulation mailed the modified text of the regulations along with a notice of the public comment period to those persons specified in subsections (a)(1) through (4) of section 44 of Title 1 of the California Code of Regulations. Those persons who submitted comments electronically were also notified via e-mail on November 3, 2015. The public comment period for the modified text was from November 4, 2015 through November 19, 2015.



Linda Irokawa-Otani
Regulations Coordinator



Date

**NOTICE OF MODIFICATIONS TO TEXT OF PROPOSED CHANGES
IN THE REGULATIONS PERTAINING TO
FIELD FUMIGANT USE REQUIREMENTS**

Pursuant to the requirements of Government Code section 11346.8(c) and section 44 of Title 1 of the California Code of Regulations (CCR), the Department of Pesticide Regulation (DPR) is providing notice of changes made to the proposed text of sections 6447.2(a) and 6449.1(a)(2) of Title 3, CCR. These changes are in response for reasons stated below. The public comment period on the originally proposed regulatory action closed on September 23, 2015. The Director finds that the modifications are sufficiently related to the original text of the proposed action. The modified text is being made available to the public for 15 days, during which written comments on the modifications will be received as provided in Government Code section 11346.8(c).

DPR will accept written comments relevant to the modifications between November 4, 2015, and 5:00 p.m. on November 19, 2015. Written comments relevant to the modifications may be sent via e-mail <dpr15002@cdpr.ca.gov>; or may be directed to Ms. Linda Irokawa-Otani, Regulations Coordinator, Department of Pesticide Regulation, 1001 I Street, P.O. Box 4015, Sacramento, California 95812-4015. FAX: (916) 324-1491.

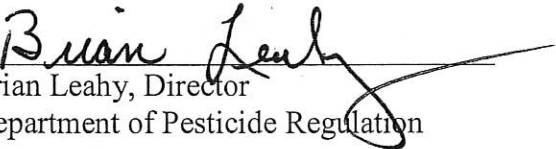
DPR has made sufficiently related changes to the text from that which was originally proposed.

- In proposed section 6447.2(a), the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, incorporated by reference, was deleted since methyl bromide product labels include the same buffer zone requirements that are specified in this document. However, DPR has reverted back to its current regulatory language in section 6447.2(a) since the label language incorrectly references the document and may cause confusion as to the appropriate buffer zone determination.
- Revise proposed section 6449.1(a)(2) to add the maximum broadcast equivalent application rate of 210 pounds of chloropicrin per acre when using the nontarpaulin/deep/broadcast method applied as alternating fumigated and unfumigated areas (strip fumigation). This maximum rate is necessary to ensure that the emission rate is reduced to 134 from 224, thereby classifying this as a low emission method. This maximum broadcast equivalent application rate was included in the *Director's Decision Concerning TriCal, Inc.'s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*, July 31, 2014.

Current wording of the regulation is shown in normal type. Originally proposed additions are shown by underline. Originally proposed deletions are shown by ~~strikeout~~. New proposed deletions are indicated by *italics and strikeout*. New wording to be added by the modifications is shown in **double underline**.

All written comments received by 5:00 p.m. on November 19, 2015, which pertain to the indicated changes, will be reviewed and considered in this rulemaking. Please limit your comments to the modifications of the text.

This Notice of Modifications to Text of Proposed Changes and the text of modified regulations are also available on DPR's Internet Home Page <<http://www.cdpr.ca.gov>>.


Brian Leahy, Director
Department of Pesticide Regulation

11-3-15

Date

TEXT OF MODIFIED REGULATIONS

Current wording is indicated by regular type.

Proposed deletions are indicated by ~~strikeout~~.

Proposed additions are indicated by underline.

New proposed deletions are indicated by ~~*italics and strikeout*~~.

New proposed additions are indicated by **bold double underline**.

DIVISION 6. PESTICIDES AND PEST CONTROL OPERATIONS CHAPTER 2. PESTICIDE REGULATORY PROGRAM SUBCHAPTER 1. DEFINITION OF TERMS ARTICLE 1. DEFINITIONS FOR DIVISION 6

Amend section 6000 to read:

6000. Definitions.

...

"**Handle**" means mixing, loading, transferring, applying (including chemigation), or assisting with the application (including flagging) of pesticides, maintaining, servicing, repairing, cleaning, or handling equipment used in these activities that may contain residues, working with opened (including emptied but not rinsed) containers of pesticides, adjusting, repairing, or removing treatment site coverings, incorporating (mechanical or watered-in) pesticides into the soil, entering a treated area during any application or before the inhalation exposure level listed on pesticide product labeling has been reached or greenhouse ventilation criteria have been met, or performing the duties of a crop advisor, including field checking or scouting, making observations of the well-being of the plants, or taking samples during an application or any restricted entry interval or entry restricted period listed on pesticide product labeling or other handling activities specified by the label. Handle does not include ~~local, state, or federal officials performing~~ inspection, sampling, or other similar official duties performed by local, state, or federal officials.

...

"**Treated field**" means a field that has been treated with a pesticide or had a restricted entry interval or entry restricted period in effect within the last 30 days. A treated field includes associated roads, paths, ditches, borders, and headlands, if the pesticide was also directed to those areas. A treated field does not include areas inadvertently contaminated by drift or over spray.

...

NOTE: Authority cited: Sections 11456, 11502, 12111, 12781, 12976, 12981, 13145, 14001, and 14005, Food and Agricultural Code. Reference: Sections 11401.2, 11408, 11410, 11501, 11701, 11702(b), 11704, 11708(a), 12042(f), 12103, 12971, 12972, 12973, 12980, 12981, 13145, 13146, and 14006, Food and Agricultural Code.

CHAPTER 2. PESTICIDES
SUBCHAPTER 4. RESTRICTED MATERIALS
ARTICLE 4. FIELD FUMIGATION USE REQUIREMENTS

Amend section 6445 to read:

6445. Fumigation-Handling Activities.

For purposes of sections 6447-6447.3, and 6784(b), fumigation-handling activities are limited to employees involved in assisting with covering the tarpaulin at the end of the rows (shoveling); assisting in the overall operation, ensuring proper tarpaulin placement and condition, and changing cylinders (copiloting); operating tractor equipment (driving); supervising the fumigation operation; operating chemigation equipment and assisting in chemigation application and leak repair (chemigating); tarpaulin cutting; tarpaulin or chemigation equipment removal prior to the expiration of the entry restricted ~~entry interval period~~; and other handling activities specified by the label.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, and 14102, Food and Agricultural Code.

Amend section 6447 to read:

6447. Methyl Bromide Field Fumigation - General Requirements.

The provisions of this section and sections 6447.1, 6447.2, 6447.3, and 6784(b) pertain to field soil fumigation using methyl bromide. For purposes of these sections, field soil fumigation does not apply to golf courses, replant of individual vine or tree-sites (tree holes) less than one contiguous acre, raised-tarpaulin nursery fumigations of less than one acre, potting soil, and greenhouses and other similar structures.

(a) In addition to the requirements of section 6428, the operator of the property to be treated shall submit a proposed work site plan to the commissioner for evaluation at least seven days prior to submitting a notice of intent. The proposed work site plan ~~shall~~ must include, but is not limited to, method of application to be used, acreage and identification of each application block to be treated, broadcast equivalent application rate to be used, description of the notification procedure to property operators pursuant to section 6447.1(b), description of any activities within the buffer zone(s) as specified in section 6447.2(~~ec~~) and (~~fd~~), description of any workday/work hour limitations as specified in section 6784(b)(3) and respiratory protection ~~as specified in sections 6784(b)(2)(C) and (b)(3) and on the label~~, and if applicable, description of the tarpaulin repair response plan, ~~and tarpaulin removal~~. The commissioner shall retain the proposed worksite plan for one year after the expiration of the permit.

(b) The commissioner, pursuant to section 6432, shall evaluate local conditions and the proposed work site plan.

(c) The commissioner shall include at least the following when conditioning a permit: the buffer zone requirements, work-hour restrictions, notification requirements, any other restrictions to address local conditions, and if applicable, description of the tarpaulin repair response plan ~~and tarpaulin removal~~. The commissioner shall complete the evaluation and complete conditioning the permit prior to the submission of the notice of intent.

(d) An application block ~~shall~~ must not exceed 40 acres unless approved by the Director.

(e) Except for experimental research purposes pursuant to a valid research authorization issued according to section 6260, or a reduced volatile organic compound emission fumigation method approved pursuant to section 6452, tarpaulins ~~shall~~ must have a permeability factor of ~~no less than 5 and~~ no more than 8 milliliters methyl bromide per hour, per square meter, per 1,000 parts per million of methyl bromide under the tarpaulin at 30 degrees Celsius, and be approved by the Department. This includes tarpaulins that have been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit. The use of this tarpaulin will not allow the reduction of buffer zone distances specified on the label. A list of approved tarpaulins is available from the Department.

(f) Tarpaulins ~~shall~~ must be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins ~~shall~~ must remain in place for the time specified in section 6447.3.

~~(g) Fumigation equipment shall be operated to eliminate pesticide drip by clearing the fumigant from the injection device before it is lifted or removed from the soil.~~

~~(hg)~~ County agricultural commissioners shall ensure that agricultural use of methyl bromide does not exceed 171,625 pounds in a township in a calendar month. County agricultural commissioners shall deny any permit or notice of intent that would cause the 171,625 pound limit to be exceeded.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6447.2 to read:

6447.2. Methyl Bromide Field Fumigation Buffer Zone Requirements.

(a) The commissioner shall set buffer zone sizes and durations based upon local conditions. The commissioner may not allow a buffer zone that is smaller or a duration that is less in permit conditions than those in Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, hereby incorporated by reference.

~~(b) The operator of the property to be treated shall assure that all buffer zone distances are measured from the perimeter of the application block.~~

~~(c) The buffer zone restrictions shall begin at the start of fumigation. The buffer zone restrictions shall remain in effect for at least 36 hours after the completion of the injection to the application block.~~

~~(db)~~ Two buffer zones, an inner and outer for each application block, shall be approved by the commissioner after the proposed worksite plan is submitted.

~~(ec)~~ Inner Buffer Zone Restrictions.

(1) The inner buffer zone ~~shall~~ must be at least 30 feet.

(2) The operator of the property to be treated shall assure that no persons are allowed within the inner buffer zone except to transit on public and private roadways by vehicles or bicycles; ~~and or to perform fumigation-handling activities.~~

(3) The inner buffer zone ~~shall~~ must not extend into adjoining property except as provided below:

(A) The inner buffer zone may extend into adjoining agricultural property if the adjoining property operator gives written permission and allows the operator of the property to be treated to post the inner buffer zone boundary on the adjoining property with signs. If such written permission is given, the operator of the property to be treated shall assure that:

1. the inner buffer zone boundaries on the adjoining property are posted with signs while the buffer zone is in effect; and
2. the signs are posted with wording criteria in accordance with the label; so that the wording is clearly visible, to persons with normal vision, from a distance of 25 feet and shall contain the following words: "METHYL BROMIDE INNER BUFFER ZONE" and "KEEP OUT" and "NO ENTRE"; and
3. the signs are posted at intervals not exceeding 200 feet.

(B) With approval from the commissioner, the inner buffer zone may extend across sites only where transit activities may occur, including streets, roads, roads within agricultural property, and highways, and other similar sites of travel. Written permission and posting requirements in 6447.2 (ec)(3)(A) shall not apply.

(fd) Outer Buffer Zone Restrictions.

(1) The outer buffer zone ~~shall~~ must be at least 60 feet.

(2) The operator of the property to be treated shall assure that no persons are allowed within the outer buffer zone except to transit on public and private roadways by vehicles or bicycles, perform fumigation-handling activities, and commissioner-approved activities as identified in the restricted materials permit conditions. In no instance shall persons be allowed within the outer buffer zone for more than 12 hours in a 24-hour period.

(3) The outer buffer zone may extend into other properties with written permission from the operators of these other properties. In no instances shall the outer buffer zone contain occupied residences or buildings, or occupied onsite employee housing while the outer buffer zone is in effect. The outer buffer zone ~~shall~~ must not extend into properties that contain schools, convalescent homes, hospitals, or other similar sites determined by the commissioner.

(4) The outer buffer zone may extend across roads, highways, ~~or similar sites of travel~~ or sites approved by the commissioner.

(ge) The operator of the property to be treated shall assure that the operator of the other properties specified in (ec)(3)(A) and (fd)(3) above, notify the following persons that a buffer zone(s) has been established on the property: onsite employees, including those of a licensed pest control business or farm labor contractor. The notice to employees ~~shall~~ must be given prior to the commencement of the employee's work activity. Notification to farm labor contractor employees may be done by giving written notice to the farm labor contractor who shall then give the notice to the employee. Employee notification ~~shall~~ must be in a manner the employee can understand, and include information required in section 6447.1(b)(2).

(hf) The operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to the other property operator, if the operator of the other property is required to notify his/her employees as specified in (ge). This specific fumigation notification ~~shall~~ must be provided to the other property operator at least 48 hours prior to starting the fumigation. If the fumigation of an application block does not commence within the time frame specified in 6447.1(a)(2), then a new notification must be provided to the other property operator specified in (ec)(3)(A) and (fd)(3), but the 48-hour requirement shall not apply unless required by the commissioner.

(ig) ~~When No fumigant application with an outer buffer zone greater than 300 feet is permitted within ¼ mile of a school property is within 300 feet of the perimeter of the outer buffer zone, the injection shall be completed no~~ unless the school is scheduled to be unoccupied during the application period and for less than 36 hours thereafter, prior to the start of a school session. School session shall be those times when students are attending scheduled classes.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6447.3 to read:

6447.3. Methyl Bromide Field Fumigation Methods.

(a) The methyl bromide field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, the following methods are prohibited during the May 1 through October 31 time period: (1), (2), (4), and (6); and if applied as alternating fumigated and unfumigated areas (strip fumigation), methods (3) and (5). In addition to labeling requirements for each of these methods, the following requirements shall apply:

- (1) ~~Nontarpaulin/Shallow/Bed~~ (Reserved)
 - ~~(A) Application rate shall not exceed 200 pounds of methyl bromide per acre.~~
 - ~~(B) The application tractor shall be equipped with an air fan dilution system.~~
 - ~~(C) Rearward curved (swept back) chisels shall be used with:~~
 - 1. closing shoes and bed shaper, or closing shoes and compaction roller; and
 - 2. chisel injection points positioned beneath and ahead of the closing shoes.
 - ~~(D) Injection depth shall be between 10 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.~~
 - ~~(E) Injection spacing shall be 40 inches or less.~~
 - ~~(F) The soil shall not be disturbed for at least three days (72 hours) following completion of injection to the application block.~~
 - ~~(G) The application block restricted entry interval shall be three days.~~
- (2) Nontarpaulin/Deep/Broadcast
 - (A) Broadcast equivalent Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.
 - (B) Forward-curved chisel ~~shall~~ must be used with:
 - 1. An application tractor equipped with an air fan dilution system, and the injection depth ~~shall~~ must be at least 20 inches; or
 - 2. Closing shoes and compaction roller and the injection depth ~~shall~~ must be at least 24 inches.
 - (C) Injection spacing ~~shall~~ must be 68 inches or less.
 - (D) The soil ~~shall~~ must not be disturbed for at least four days (96 hours) following completion of injection to the application block.
 - ~~(E) The application block restricted entry interval shall be four days.~~
- (3) Tarpaulin/Shallow/Broadcast
 - (A) Broadcast equivalent Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.
 - (B) Application ~~shall~~ must be made using ~~either:~~
 - 1. ~~A~~an application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant ~~shall~~ must be injected laterally beneath the soil surface; ~~or~~
 - 2. ~~Rearward curved (swept back) chisels, closing shoes, and compaction roller shall be used.~~
 - (C) Injection depth ~~shall~~ must be at least 10 and no greater than 15 inches.
 - (D) Injection spacing ~~shall~~ must be 12 inches or less.

(E) The tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) ~~The tarpaulin shall not be cut until a minimum of five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(4).~~

(G) Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.

~~(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least six days.~~

(4) Tarpaulin/Shallow/Bed

(A) Broadcast equivalent Application rate ~~shall~~ must not exceed 250 pounds of methyl bromide per acre.

(B) Rearward-curved (swept-back) chisels ~~shall~~ must be used with either:

1. Closing shoes and compaction roller. The closing shoes ~~shall~~ must cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

2. Bed shaper. The chisels ~~shall~~ must be placed with the injection point under the bed shaper, and the tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

3. Combination bed former and bed shaper. The chisels ~~shall~~ must be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment ~~shall~~ must immediately follow the application tractor.

(C) Injection depth shall be between 6 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.

(D) Injection spacing ~~shall~~ must be 12 inches or less.

~~(E) The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.~~

(F) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. ~~The application block restricted entry interval shall end at completion of tarpaulin removal, and shall~~ entry restricted period must be at least six days, ~~or 10 days if using tarpaulin described in (E).~~

(G) If tarpaulins are not to be removed before planting, the application block entry restricted-entry interval period ~~shall~~ must either:

1. consist of the five-day period ~~described in subsection (E)~~ plus an additional 48 hours after holes have been cut for planting ~~if using a tarpaulin not described in subsection (E), or~~

2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (E), or

3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than five parts per million before planting begins.

(5) Tarpaulin/Deep/Broadcast

(A) ~~Broadcast equivalent~~ Application rate ~~shall~~ must not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisels ~~shall~~ must be used with either:

1. An air fan dilution system on the application tractor; or
2. Closing shoes and compaction roller.

(C) Injection depth ~~shall~~ must be at least 20 inches.

(D) Injection spacing ~~shall~~ must be 66 inches or less.

(E) The tarpaulin ~~shall~~ must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) ~~The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. The tarpaulin shall be cut pursuant to section 6784(b)(4)~~

(G) Tarpaulin removal ~~shall~~ must begin no sooner than 24 hours after tarpaulin cutting has been completed.

~~(H) The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least six days.~~

(6) Drip System - Hot Gas

A hot gas application through a subsurface drip irrigation system to tarpaulin-covered beds may be used if all of the following criteria are met:

(A) ~~Broadcast equivalent~~ Application rate ~~shall~~ must not exceed 225 pounds of methyl bromide per acre.

(B) The fumigant ~~shall~~ must be injected beneath the soil surface at a minimum depth of one inch.

(C) The portion of the drip system used in the fumigation ~~shall~~ must be physically disconnected from the main water supply during the fumigation to prevent possible contamination of the water supply.

(D) All fittings and emitters underneath the tarpaulin ~~shall~~ must be buried in the soil to a minimum depth of one inch.

(E) Prior to the start of the fumigation, all drip tubing ~~shall~~ must be checked for blockage, and the irrigation system connections and fittings checked for blockage and leaks using pressurized air and/or water. The end of each drip tubing ~~shall~~ must be placed under the tarpaulin prior to introduction of fumigant.

(F) The tarpaulin ~~shall~~ must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments ~~shall~~ must be made before the fumigation begins.

(G) Prior to the start of the fumigation, all fittings above ground and outside of the tarpaulin ~~shall~~ must be pressure-tested with compressed air, water, or nitrogen gas to a maximum pressure of 50 pounds per square inch. A soap solution ~~shall~~ must be used to check the fittings for leaks if using air or nitrogen. All apparent leaks ~~shall~~ must be eliminated prior to the fumigation. All drip tubing with emitters connected to the distribution manifold not covered by the tarpaulin ~~shall~~ must be sealed to prevent fumigant loss through the emitters.

(H) Prior to introducing the fumigant, the drip system ~~shall~~ must be purged of water by means of pressurized gas, such as CO₂ or nitrogen.

(I) The drip system ~~shall~~ must be purged prior to disconnecting any line containing the fumigant.

(J) After purging, drip tubing ~~shall~~ must be pinched off and then disconnected from the distribution manifold. All disconnected tubing leading into the treated field ~~shall~~ must be secured to prevent gas from escaping.

(K) All fittings used for connecting or disconnecting the heat exchanger to the irrigation system manifold ~~shall~~ must be of a positive shut-off design.

(L) All persons ~~shall~~ must wear the eye protection specified on the label when working with a manifold system or tubing containing the fumigant under pressure.

(M) The entire fumigation system (heater, valves, and manifold) ~~shall~~ must be purged of the fumigant at the end of each day's fumigation.

(N) ~~The tarpaulin shall not be cut until at least five days (120 hours) following completion of injection to the application block. If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.~~

(O) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. ~~The application block restricted entry interval shall end at completion of tarpaulin removal and shall~~ entry restricted period must be at least six days, ~~or 10 days if when using tarpaulin described in (N).~~

(P) If tarpaulins are not to be removed before planting, the application block entry restricted-entry interval period shall must either:

1. consist of the five-day period ~~described in subsection (N)~~ plus an additional 48 hours after holes have been cut for planting, ~~if using a tarpaulin not described in subsection (N), or~~

2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (N), or

3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than five parts per million before planting begins.

(b) Notwithstanding section 6770, the operator of the property shall assure that only persons performing fumigation-handling activities are allowed in an application block before the entry restricted entry interval period expires. Persons performing activities other than tarpaulin cutting, removal, and repair described in sections 6784(b)(3), ~~(4)~~, and (5) shall wear a full-face respirator that meets the requirements ~~of section 6784(b)(2)(C)~~ specified on the label.

(c) Notwithstanding subsection (a), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

Amend section 6448.1 to read:

6448.1. 1,3-Dichloropropene Field Fumigation Methods.

(a) Broadcast equivalent ~~A~~ application rate must not exceed 332 pounds of 1,3-Dichloropropene active ingredient per acre.

~~(b) If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) — at least enough moisture so that the soil is pliable, not crumbly.~~

(eb) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils - a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils - a minimum of 0.30 inches of water per acre.

(3) fine texture soils - a minimum of 0.20 inches of water per acre.

(c) If an application is made alternating fumigated and unfumigated areas (strip fumigation), the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(d) The 1,3-Dichloropropene field soil fumigation must be made using only the methods described in this section. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1) is prohibited; method (2) is are-prohibited unless applied as a broadcast fumigation using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit; and method (5) is prohibited when 1,3-Dichloropropene is used in combination with chloropicrin unless applied as alternating fumigated and unfumigated areas (strip fumigation). In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Nontarpaulin/Shallow/Broadcast or Bed

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B)~~ Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(2) Tarpaulin/Shallow/Broadcast or Bed

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(3) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B)~~ Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

~~(C)~~ Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (eb):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Tarpaulin/Shallow/Bed/Three Post-Fumigation Water Treatment

~~(A) Injection point must be at least 12 inches below the soil surface.~~

~~(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches.~~

~~(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.~~

~~(D) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block. Tarpaulin removal must not begin sooner than 24 hours after tarpaulin cutting has been completed.~~

(D) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (e):

1. Water must be applied by an irrigation method that uniformly covers the untarped area in the entire application block.

2. On the day of fumigation, the first water treatment to the untarped areas must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment to the untarped areas must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment to the untarped areas must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(5) Nontarpaulin/Deep/Broadcast ~~or Bed~~

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(6) Tarpaulin/Deep/Broadcast ~~or Bed~~

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(7) Chemigation (Drip System)/Tarpaulin

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape,

and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) The tarpaulin ~~shall~~ must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments ~~shall~~ must be made before the chemigation begins.

(C) Ends of drip tape not covered by tarpaulin must be covered by at least two inches of soil.

(D) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(e) Tarpaulin Repair.

(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan ~~shall~~ must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan ~~shall~~ must indicate the parties responsible for the repair and incorporate the applicable elements listed in (2) below.

(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(f) Notwithstanding subsection (d), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6449.1 to read:

6449.1. Chloropicrin Field Fumigation Methods.

~~(a) Application rate must not exceed 400 pounds of chloropicrin per acre.~~

~~(b)~~ For products containing chloropicrin as the sole active ingredient, the field soil fumigation must be made using only the methods described in section 6447.3 or 6448.1. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas the methods described in the following sections are prohibited:

(1) 6447.3(a)(1),(2), ~~(4)~~; and (6); and 6448.1(d)(1) and (5);

(2) 6448.1(d)(5), unless applied as alternating fumigated and unfumigated areas (strip fumigation) and the broadcast equivalent application rate must not exceed 210 pounds of chloropicrin per acre; and

(3) 6447.3 (a)(4), 6447.3(a)(3) and (5) if applied as alternating fumigated and unfumigated areas (strip fumigation), ~~methods 6447.3(a)(3) and (5); 6448.1(d)(1) and (5); and 6448.1(d)(2) if applied as a bed fumigation, 6448.1(d)(2) unless a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit is used.~~

(c) ~~If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) — at least enough moisture so that the soil is pliable, not crumbly.~~

(b) If an application is made alternating fumigated and unfumigated areas (strip fumigation), the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(d) Tarpaulin Repair.

~~(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan shall identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan shall indicate the parties responsible for the repair and incorporate the applicable elements described in (2) below.~~

~~(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.~~

(ec) Notwithstanding subsection (ba), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6450.1 to read:

6450.1. Metam-Sodium and Potassium N-methyldithiocarbamate (Metam-Potassium) Field Fumigation Methods.

(a) Application rate must not exceed 320 pounds active ingredient per acre for metam-sodium. Broadcast equivalent Application rate must not exceed 350 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

~~(b) Except for the method described in subsection (e)(9), if there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) — at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) — at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam, and clay) at least enough moisture so that the soil is pliable, not crumbly.~~

(eb) Fumigations must start no earlier than one hour after sunrise and must be completed no later than one hour before sunset except for the method described in subsection (ed)(9), (10), and (11).

(ec) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils - a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils - a minimum of 0.30 inches of water per acre.

(3) fine texture soils - a minimum of 0.20 inches of water per acre.

(ed) The metam-sodium or potassium N-methyldithiocarbamate (metam-potassium) field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1), (4), and (9) are prohibited. In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Sprinkler/Broadcast or Bed/One Post-Fumigation Water Treatment

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatment below and meet the requirements in subsection (ec):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, one post-fumigation water treatment must begin within 30 minutes of the completion of fumigation.

3. Any additional post-fumigation water treatment(s) may be applied at any time.

(2) Sprinkler/Broadcast or Bed/Two Post-Fumigation Water Treatments

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (ed):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(3) Sprinkler/Broadcast or Bed/Three Post-Fumigation Water Treatments

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below:

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment, be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Nontarpaulin/Shallow/Broadcast or Bed/One Post-Fumigation Water Treatment

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(1)(A).

(5) Nontarpaulin/Shallow/Broadcast or Bed /Two Post-Fumigation Water Treatments

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(6) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(3)(A).

(7) Chemigation (Drip System)

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(8) Rotary Tiller/Power Mulcher/Soil Capping

(A) Application equipment must be followed immediately by soil compaction equipment.

(9) Flood

(A) The fumigant must be applied with at least four inches of water per acre.

(10) 1:00 AM Start/Nontarpaulin/Shallow/Broadcast/Two Post-Fumigation Water Treatments

(A) The fumigation application must start no earlier than 1:00 a.m.

(B) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(C) The following application equipment and procedures must be used:

~~1. No more than 24 hours before application, thoroughly cultivate the field to remove clods with a disc or spring tooth bar. Soil must contain at least enough moisture pursuant to subsection (b).~~

21. The application equipment must meet the following criteria:

i. The shanks must be set on three application tool bars, with the bars spaced 12 to 16 inches apart from front to back. The shanks must be staggered on each tool bar to produce a final overall shank spacing of 9 to 11 inches.

ii. Injection depth on each shank must be 3 to 4 inches, 6 to 7 inches, and 9 to 10 inches.

iii. Nitrogen must be used to purge the system before applicator bar is lifted out of the ground at any time.

iv. The application tool bars must be followed by a ring roller that is at least as wide as the application tool bars, with four gauge wheels controlled by hydraulic cylinders to control depth and/or pressure; or with a coil packer that is at least as wide as the application tool bars.

(11) 4:00 AM/ Start/Sprinkler/Broadcast or Bed/Two Post-Fumigation Water Treatments

(A) Notwithstanding (a), in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas the broadcast equivalent application rate must not exceed 260 pounds active ingredient per acre for metam-sodium or 290 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

(B) Fumigation must start no earlier than 4:00 a.m.

(C) Fumigation must be completed in compliance with post-fumigation water treatments pursuant to (ed)(2)(A).

(12) Drench

(A) Notwithstanding (a), in the Sacramento Metro and South Coast ozone nonattainment areas, broadcast equivalent application rate must not exceed 246 pounds active ingredient per acre for metam-sodium or 270 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium). In the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, broadcast equivalent application rate must not exceed 90 pounds active ingredient per acre for metam-sodium or 98 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

(B) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (ed)(2)(A).

(~~f~~e) Notwithstanding subsection (ed), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

Amend section 6452 to read:

6452. Reduced Volatile Organic Compound Emissions Field Fumigation Methods.

(a) For the Sacramento Metro and South Coast ozone nonattainment areas, the Director may approve use of a field fumigation method not described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1 if the request is accompanied by scientific data documenting the volatile organic compound (VOC) emissions. The emission rating specified in section 6881 or the maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) must be no greater than any one of the methods for the same fumigant described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1.

(b) For the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, upon written request, the Director may approve use of a field fumigation method either not described or excluded from use in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1 if the request meets the following criteria:

(1) The request is accompanied by scientific data documenting the VOC emissions;

(A) The emission rating, as specified in section 6452.4, is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1, or

(B) The maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1.

(c) Criteria the Director shall consider includes whether:

(1) the data and information provided are sufficient to estimate emissions;

(2) the results are valid as indicated by the quality control data; and

(3) the conditions studied represent agricultural fields fumigated.

(d) The Director shall publish a notice of interim approval for a field fumigation method on the Department's Web site. The interim approval expires three years after the date of approval.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 14006, and 14102.

Amend section 6452.2 to read:

6452.2 Volatile Organic Compound Emission Limits.

(a) The Director shall establish field fumigant volatile organic compound (VOC) emission limits in the Annual Volatile Organic Compound Emissions Inventory Report issued pursuant to section 6881 for the Sacramento Metro, South Coast, Southeast Desert, and Ventura ozone nonattainment areas where the difference between emissions in the most recent inventory report and the benchmarks for that area is five percent or less of the benchmarks or exceeds the benchmarks listed below during the May 1 through October 31 time period:

Ozone Nonattainment Area	Total Agricultural and Structural VOC Emissions Inventory Benchmarks from May 1 to October 31
Sacramento Metro	820,000 lbs. (2.2 tons/day average)
South Coast	3,200,000 lbs. (8.7 tons/day average)
Southeast Desert	340,000 lbs. (0.92 tons/day average)
Ventura	1,100,000 lbs. (3.0 tons/day average)

(1) If a VOC emission limit is in effect pursuant to (a) that limit must remain in effect until the commissioner does not condition permits to include a fumigant emission allowance specified in (c)(1) or (d)(1), and does not deny any permit or notice of intent specified in (c)(2) or (d)(2) in order to comply with the fumigant emission limit for two consecutive years.

(b) The Director shall calculate the field fumigant VOC emission limits specified in (a) by subtracting the nonfumigant pesticide VOC emissions from the total agricultural and structural VOC emissions inventory benchmarks. Nonfumigant pesticide product emissions will be the summation of the pounds of each pesticide product used multiplied by the VOC content (emission potential) for the specific product.

(c) For the Ventura ozone nonattainment area, the commissioner shall ensure that the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period using one or more of the following methods for field soil fumigations:

- (1) Condition permit to include fumigant emission allowances.
- (2) Deny any permit or notice of intent that would cause the fumigant limit to be exceeded.
- (3) Condition permit to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(ed), 6449.1(ba), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(d) For ozone nonattainment areas other than Ventura, the Director shall select one or more of the following methods to ensure the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period:

(1) The Director establishes a fumigant emission allowance for each permittee, based on information provided the commissioners within the ozone nonattainment area. The total allowances in each ozone nonattainment area must not exceed the fumigant limit established for that area. Commissioners shall issue permits or amend existing permits to comply with the fumigant emission allowance(s) established by the Director. Commissioners shall deny any notice of intent that does not comply with the permittees' fumigant emission allowances.

(2) Commissioners deny any permit or notice of intent that would cause the fumigant limit to be exceeded.

(3) Commissioners condition permits to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(ed), 6449.1(ba), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(e) No person may apply a field fumigant during the May 1 through October 31 time period in an ozone nonattainment area for which a fumigant emission limit has been established pursuant to (a), unless their restricted material permit includes conditions specified in (c) or (d), or notice of intent is approved in writing.

(f) For the San Joaquin Valley ozone nonattainment area, if the difference between emissions in the most recent emissions inventory report and the 6,700,000 pound (18.1 tons per day) benchmark for this area is five percent or less of the benchmark or exceeds this benchmark during the May 1 through October 31 time period, the provisions of section 6884 shall apply.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.
Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.

CHAPTER 3. PEST CONTROL OPERATIONS

SUBCHAPTER 3. PESTICIDE WORKER SAFETY

ARTICLE 4. FUMIGATION

Amend section 6784 to read:

6784. Field Fumigation.

(a) Signs required to be posted in accordance with section 6776(f) shall remain in place until aeration is complete.

(b) The provisions of this subsection pertain to field soil fumigations using methyl bromide applied pursuant to the fumigation methods described in section 6447.3.

(1) Employer Recordkeeping. The employer shall maintain records for all employees performing fumigation-handling activities. The records ~~shall~~ must identify the person, work activity(ies), date(s), duration of handling, the U.S. Environmental Protection Agency Registration Number, and the brand name of the methyl bromide product handled. The employer shall maintain these use records at a central location for two years.

(2) Employee Protection Requirements.

(A) Employees involved primarily in shoveling shall work only at the ends of the application rows.

~~(B) At least two trained employees shall be present during introduction of methyl bromide and removal of tarpaulins, if used.~~

~~(C) When required by this section, employees shall wear National Institute for Occupational Safety and Health (NIOSH) certified respiratory protection specifically recommended by the manufacturer for use in atmospheres containing five parts per million or less methyl bromide. a certified respiratory protection as specified on the label. Employees shall wear the required respiratory protection during the entire duration of the fumigation-handling activity. NIOSH-approved, air-supplying respiratory protection may be used in lieu of chemical cartridge respirators.~~

(3) Limited Work Hours and Workdays.

(A) No employee may work in fumigation-handling activities more than the hours specified in Table 1--Maximum Work Hours during the injection period and during the ~~restricted entry interval~~ entry restricted period.

1. An employee may perform fumigation-handling activities without the work-hour limitations specified in Table 1--Maximum Work Hours if a full-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in Table 1--Maximum Work Hours for any one work task or application method performed.

(B) Notwithstanding subsection (b)(3)(A), an employee may work in fumigation-handling activities in a 24-hour period for the work hours specified in Table 2--Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month during the injection period and during the ~~entry restricted entry interval~~ entry restricted entry interval period, provided the employee's total workdays performing fumigation-handling activities do not exceed three days in a calendar month.

1. An employee may perform fumigation-handling activities without the work- hour limitations specified in Table 2--Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month if a half-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in Table 2-- Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month for any one work task or application method performed.

Table 1. Maximum Work Hours

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Wearing Half-Face Respirator During Entire Fumigation-Handling Activity
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	8* 8*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	8* 8 ^{1/}
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ²
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	no limitation 6* 6* 10 ^{1/} no limitation ^{2/}
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ^{2/}
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	4* 4* 10 ^{1/} no limitation ^{2/}

^{1/} Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than one hour in a 24-hour period. The maximum one-hour work limitation may be increased in accordance with the formula located below.

^{2/} Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than three hours in a 24-hour period. The maximum three-hour work limitation may be increased in accordance with the formula located below.

* If the actual methyl bromide application rate is less than the maximum application rate shown above in Table 1 or below in Table 2 for the particular fumigation method used, the maximum work hours may be increased in accordance with the following formula:

$$\frac{\text{maximum application rate for method}}{\text{actual application rate}} \times \frac{\text{maximum work hours in a 24-hour period}}{1} = \frac{\text{revised maximum work hours in a 24-hour period}}{1}$$

Table 2. Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Without the Use of Respirators
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	4* 4*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	4* 7*
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	4* 4* 4* 4 7
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	2* 2* 4 7

(C) No employee shall be allowed to alternate between the workday and work-hour requirements specified in subsection (b)(3)(A) and (B) unless the employee did not perform fumigation-handling activities during the previous 30 days.

(4) ~~Tarpaulin Cutting and Removal Procedures.~~ (Reserved)

~~(A) Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of gas is readily evident (onset of eye irritation or odor).~~

~~(B) Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods, including all-terrain vehicle or a tractor with a cutting wheel. Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.~~

(5) Tarpaulin Repair.

(A) The operator of the property shall assure that a "tarpaulin repair response plan" is provided to the commissioner. The tarpaulin repair response plan ~~shall~~ must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan ~~shall~~ must indicate the parties responsible for the repair and incorporate the applicable elements listed in (B) below.

(B) The "tarpaulin repair response plan" approved by the commissioner in the work site plan must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(C) The ambient air in the damaged areas of the tarpaulin to be repaired must be tested for methyl bromide concentration by a certified applicator of the licensed pest control business that made the application, or by a certified applicator employee of the permittee, or certified applicator permittee, using a testing device as specified by the labeling. The certified applicator ~~must~~ shall wear self-contained breathing apparatus when conducting these tests.

(D) All repair work areas must test less than five parts per million methyl bromide before any employee without respiratory protection shall be allowed to enter and conduct tarpaulin repair. Such employee is limited to one work hour in a 24-hour period, unless respiratory protection specified in ~~subsection (b)(2)(C)~~ on the label is worn.

NOTE: Authority cited: Sections 11456 and 12981, Food and Agricultural Code. Reference: Section 12981, Food and Agricultural Code.

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November 12, 2015

Linda Irokawa-Otani
Regulations Coordinator
Department of Pesticide Regulation

RE: 15 day Comment on Field Fumigation regulation proposal 15-002
Proposed SIP amendments regarding pesticide emissions

Via email: dpr15002@cdpr.ca.gov

Dear Ms. Irokawa-Otani:

Thank you for providing this opportunity to comment on proposed revision to the Ozone State Implementation Plan (SIP) for regulating pesticide emissions to prevent smog formation.

We support the proposed revision that would retain the reference to the Methyl Bromide Field Fumigation Buffer Zone Determination Table Rev. 3/10 in section 6447.2(a). This reference needs to be retained both because the label incorrectly references the document and because the label could be changed without opportunity for public comment or involvement by OEHHA in evaluation of the effect on worker safety. We also support the proposed revision to section 6449.1(a)(2) that adds the maximum broadcast equivalent application rate of 210 lb/ac for strip fumigations and concur that this change is needed to ensure that the emission rate does not exceed the maximum required for a low emission application method.

These proposed changes significantly improve the proposed regulation but they do not address many of the concerns raised in our initial comment letter of September 23rd, 2015 that we hereby incorporate by reference.

Sincerely,



Anne Katten, MPH
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Michael Meuter, Attorney at Law
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Californians for Pesticide Reform

UPDATED INFORMATIVE DIGEST

There have been no changes in applicable laws described in the Notice of Proposed Regulatory Action.

DPR made changes that are sufficiently related to the originally proposed text.

- In proposed section 6447.2(a), the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, incorporated by reference, was deleted since methyl bromide product labels include the same buffer zone requirements that are specified in this document. However, DPR has reverted back to its current regulatory language in section 6447.2(a) since the label language incorrectly references the document and may cause confusion as to the appropriate buffer zone determination.
- Revise proposed section 6449.1(a)(2) to add the maximum broadcast equivalent application rate of 210 pounds of chloropicrin per acre when using the nontarpaulin/deep/broadcast method applied as alternating fumigated and unfumigated areas (strip fumigation). This maximum rate is necessary to ensure that the emission rate is reduced to 134 from 224, thereby classifying this as a low emission method. This maximum broadcast equivalent application rate was included in the *Director's Decision Concerning TriCal, Inc.'s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*, July 31, 2014.

FINAL STATEMENT OF REASONS AND PUBLIC REPORT
DEPARTMENT OF PESTICIDE REGULATION

Title 3. California Code of Regulations
Amend Sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1,
6449.1, 6450.1, 6452, 6452.2, and 6784
Pertaining to Field Fumigant Use Requirements

UPDATE OF THE INITIAL STATEMENT OF REASONS

The proposed regulatory action was noticed in the *California Regulatory Notice Register* on August 7, 2015. During the 45-day public comment period, the Department of Pesticide Regulation (DPR) received comments on the proposed text. The comments are discussed under the heading “Summary and Response to Comments Received” of this Final Statement of Reasons. Based upon the comments received from the public and for reasons below, DPR modified the text from that originally proposed.

DPR received comments addressing the modified text during the 15-day public comment period. These comments are discussed under the subheading “Comments Received During the 15-Day Public Comment Period.”

Changes to the Text of Proposed Regulations

- In proposed section 6447.2(a), the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, incorporated by reference, was deleted since methyl bromide product labels include the same buffer zone requirements that are specified in this document. However, DPR has reverted back to its current regulatory language in section 6447.2(a) since the label language incorrectly references the document and may cause confusion as to the appropriate buffer zone determination.
- Revise proposed section 6449.1(a)(2) to add the maximum broadcast equivalent application rate of 210 pounds of chloropicrin per acre when using the nontarpaulin/deep/broadcast method applied as alternating fumigated and unfumigated areas (strip fumigation). This maximum rate is necessary to ensure that the emission rate is reduced to 134 from 224, thereby classifying this as a low emission method. This maximum broadcast equivalent application rate was included in the *Director’s Decision Concerning TriCal, Inc.’s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*, July 31, 2014.

DPR has amended Title 3, California Code of Regulations sections 6000, 6445, 6447, 6447.2, 6447.3, 6448.1, 6449.1, 6450.1, 6452, 6452.2, and 6784. In summary, this action adds and revises existing field fumigation methods in the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) when using methyl bromide, 1,3-Dichloropropene (1,3-D), chloropicrin, metam-sodium, and potassium N-methyldithiocarbamate (metam-potassium), and makes changes to be consistent with product labeling.

PUBLIC HEARING

DPR scheduled and held a public hearing on September 22, 2015 in Bakersfield, California. A transcript of the hearing is contained in the rulemaking file.

SUMMARY AND RESPONSE TO COMMENTS RECEIVED DURING 45-DAY COMMENT PERIOD

- *Anne Katten, California Rural Legal Assistance Foundation, et. al (44 organizations)*

Comment: The SIP must be revised to require 20 percent pesticide VOC emission reduction for the San Joaquin Valley to insure parity with other air basins.

Response: This comment is outside the scope of the proposed regulations – no response necessary.

Comment: We acknowledge that data indicates that use of TIF tarps should reduce emission of chloropicrin and 1,3-D to some extent compared with use of standard tarps. We dispute the validity of the very low emission ratings of 7 percent assigned to all chloropicrin TIF tarp fumigation methods, 10 percent assigned to broadcast 1,3-D TIF tarp methods and 21 percent assigned to 1,3-D TIF tarp deep injection broadcast strip fumigations.

Response: DPR disagrees. The methods were assigned emission ratings based on fumigant emission studies as discussed in “Director’s Decision Concerning Environmental Monitoring Branch’s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method” dated April 29, 2013. The commenter did not provide additional study/data to support the comment.

Comment: Question the validity of the 10 percent emission rating for 1,3-D shallow and deep broadcast fumigations using TIF tarps because it is based on results of a study in which TIF tarps were not cut until 10 or 15 days after application while the proposed regulation allows the tarp to be cut after 9 days.

Response: Analysis of the emissions measured during the study as discussed in “Hydrus Simulation of Chloropicrin and 1,3-Dichloropropene Transport and Volatilization in the Lost Hills Fumigation Trials” dated February 8, 2013, indicates if the tarp was cut at 9 days or more, emissions after tarp cutting would be negligible. The commenter did not provide additional study/data to support the comment.

Comment: DPR has yet to complete the process to certify which TIF tarps maintain integrity under wet condition though a DPR official has stated that his certification should be in place by the end of the year.

Response: The regulations refer to tarpaulins that have been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer

zone reduction credit. There is no indication that these tarpaulins are less effective than standard (non-TIF) tarpaulins.

Comment: Object to deleting the methyl bromide buffer zone table referenced in the regulations to this change on the grounds that the California specific label could be changed without opportunity for public comment or involvement by Office of Environmental Health Hazard Assessment (OEHHA) in evaluation of the effect on worker safety. Furthermore, the larger California specific methyl bromide buffer zones are only included in web links provided on the labels and the Great Lakes Terro--gas labels include a link to an out of date DPR document rather than the current DPR methyl bromide buffer zone tables.

Response: Section 6447.2(a) has been reverted back to its current language since without reference to the document, “Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10,” the label language may cause confusion in determining which document is to be used when establishing buffer zones.

Comment: Oppose the proposed deletion of the respiratory protection language from the regulation because the California label could be changed without opportunity for public comment or involvement by OEHHA of review of the effect on worker safety.

Response: It is unnecessary and redundant to include language that is on a label. It is a violation of Federal law to use a product in a manner inconsistent with its label. Any label change would require a notice to the public and OEHHA and an opportunity to comment.

Comment: Concerned that DPR hasn’t evaluated methyl bromide exposure levels to tarp cutters, removers and hole burners after the 9 days when tarps can be cut and the subsequent day when they can be removed. Since data on methyl bromide emissions using TIF tarps is limited and variable and some studies indicate that methyl bromide does not degrade in soil, we are concerned that exposure when cutting TIF tarps after 9 days could be higher than when cutting standard tarps after 5 days. For added protection we recommend limiting work hours for cutting or removing TIF tarps to 3 hours per day from fields treated with products containing more than 50 percent methyl bromide and requiring an aeration period of 48 hours after tarp cutting for these applications. We do not recommend relying on respirators for reducing exposure to methyl bromide because we have concerns about efficacy of the cartridges labeled for methyl bromide use that we have detailed in previous comments.

Response: The regulations pertain to the reduction of VOC emissions and provide the same level of protection as current regulations that allow cutting on standard (non-TIF) tarpaulins after five days. The regulations do not address worker exposure

Comment: Concerned that exposure of tarp cutters, tarp removers and hole burners to 1,3-D has not been evaluated and recommend a requirement of use of full- face respirators for this work.

Response: This comment is outside the scope of the proposed regulations – no response necessary. See response above.

Comment: The ISR states that DPR is proposing to replace “application rate” with “broadcast equivalent application rate” in multiple sections of the regulations because the latter is used to calculate VOC emissions from strip and bedded applications. However, the proposed changes in regulation could be interpreted to make the broadcast equivalent rate the maximum application rate. This is not acceptable because maximum application rates and at least some fumigation buffer zone requirements are based on the treated area application rate.

Response: The proposed terminology is consistent with current labeling. The change was not made to calculate VOC emission from strip applications. Labels refer to the “broadcast equivalent application rate” as the fumigant applied within the entire perimeter of the application block. Replacing the term “application rate” with “broadcast equivalent” does not affect the maximum application rate that can be applied to an area of the application block. Buffer zones were determined based on the broadcast equivalent application rate.

Comment: The proposed change in section 6448.1(a) would allow a 1,3-D broadcast equivalent rate of 332 lb./acre for any method which would increase the maximum allowable application rates in the treated portions of the field for bedded applications of 1,3-D. In addition, it doesn’t follow that for the strip fumigation applications in proposed changes to section 6448.1(d) the maximum broadcast equivalent rate would be 210 lb./acre when the maximum broadcast equivalent application rate is set at 332 lb./acre earlier in section 6448.1(a).

Response: DPR agrees and has modified the proposed text to specify the maximum broadcast application of 210 pounds per acre of chloropicrin when using the method specified in section 6448.1(d)(5) as alternating fumigated and unfumigated strips, in order for this method to be classified as a low emission method. The 210 lb/acre rate is a maximum broadcast application rate for chloropicrin with a strip application which is applied at the maximum application rate of 350 lb/acre to strips that cover 60 percent of the application block.

- *Mark Martinez, California Strawberry Commission*

Comment: Supports the proposed amendments to the Field Fumigant Use Requirements.

Response: No response necessary.

- *James Wells, Environmental Solutions Group, LLC on behalf of AgSIP*

Comment: While supportive of the amendments in general, the proposed amendment to section 6447.2, Methyl Bromide Field Fumigation Buffer Zone Requirements subsection (a) eliminates the reference to the Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, thereby referring the user to buffer zones specified on the label. However, in determining Methyl Bromide buffer zones on the label, U.S. Environmental Protection Agency recognized DPR's longstanding buffer zones and requires users to follow the buffer zones incorporated into DPR regulations. The Workgroup requests that the original language in this section be retained.

Response: DPR agrees. Section 6447.2(a) has been reverted back to its current language.

Comment: Supports changes which remove repetitive language and additional changes which are intended to provide more clarity to the DPR regulations.

Response: No response necessary.

- *Stephen Wilhelm, Chloropicrin Manufacturers' Task Force*

Comment: Supports DPR's goals to (1) harmonize its regulations regarding the application of chloropicrin and other fumigants with the federal labels recently amended by the reregistration of certain soil fumigants including chloropicrin; and, (2) codify in DPR's regulations certain low-emission application methods.

Response: No response necessary.

- *Michael S. Stanghellini, TriCal, Inc.*

Comment: Overall, support the proposed amendments to the Field Fumigant Use Requirements.

Response: No response necessary.

Comment: The elimination of the reference to the "Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10" is problematic. Because DPR's successful implementation of methyl bromide regulations pre-dated the federal Phase II label changes by many years, the USEPA gave special consideration to end-users in California. Specifically, the federal methyl bromide field fumigant labels state that, in California, the label buffer zones do not apply, and that end-users in California must refer to, and use, the DPR's methyl bromide regulations. The federal label buffer zones for methyl bromide products were developed by the USEPA from a nation-wide perspective, and are significantly different than those in use in California since the early 2000s. To change the basis for buffer zones at this time would not only create confusion, it would incur severe hardships for growers.

Response: DPR agrees. Section 6447.2(a) has been reverted back to its current language.

- *Sal Partida, Committee for a Better Arvin*

Comment: The kind of chemicals that are being sprayed should be modified to a more sensitive type of chemical. The schools should be a mile from where there is spraying.

Response: Comment is not within the scope of the proposed regulations – no response necessary.

Comment: The schools should be a mile from where there is spraying.

Response: Comment is not within the scope of the proposed regulations – no response necessary.

- *Jose Chavez*

Comment: The regulation is not effective. San Joaquin Valley has a lot of issues—12 percent should be increased to 20 percent.

Response: Comment is not within the scope of the proposed regulations – no response necessary.

Comment: The fumigant buffer zone should be at least one mile away from schools.

Response: Comment is not within the scope of the proposed regulations – no response necessary.

- *Cesar Aguirre*

Comment: The TIF tarps are a band-aid. Basic needs of the community does not seem to be the priority of the people taking care of the regulations.

Response: Comment is not within the scope of the proposed regulations – no response necessary.

- *Valerie Gorospe, Center on Race, Poverty, and the Environment*

Comment: DPR must put in place a 20 percent pesticide VOC emission reduction requirement in the San Joaquin Valley.

Response: This comment is outside the scope of the proposed regulation - no response necessary.

Comment: Even the most high-tech TIF tarps are an unreliable method of controlling the release of volatile fumigants into the air. DPR claims that using TIF tarps will control emissions so that only seven percent of chloropicrin fumigant and ten percent of Telone fumigant applied to the soil will be released into the air. Under this proposed rule, only seven to ten pounds of these fumigants will be counted as VOC emissions for every 100 pounds applied to the soil. This is based on limited information from small field experiments.

Response: DPR disagrees. The methods were assigned emission ratings based on several fumigant emission studies as discussed in “Director’s Decision Concerning Environmental Monitoring Branch’s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method” dated April 29, 2013. The commenter did not provide additional study/data to support the comment.

Comment: DPR has yet to complete the process to certify which TIF tarps reliable control emissions under wet conditions through DPR claims that this certification should be in place by the end of this year. Through an interim rule this low-emission rates for the TIF tarps were already used in the 2013 pesticide VOC inventory. DPR reported a 44 percent decrease in, and “adjusted,” end quote, pesticide VOC emissions in Ventura due to a widespread use of TIF tarps,

tarp methods for applying the fumigant or chloropicrin. The only failsafe way to reduce pesticide fumigant levels in the air is to phase out fumigants. DPR needs to set much higher emission rates that take real-world application conditions into account.

Response: The regulations refer to tarpaulins that have been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit. There is no indication that these tarpaulins are less effective than standard (non-TIF) tarpaulins.

COMMENTS RECEIVED DURING THE 15-DAY COMMENT PERIOD

- *Anne Katten, California Rural Legal Assistance (CRLA) Foundation; Michael Meuter, CRLA, Inc.; and Sarah Aird, California for Pesticide Reform*

Comment: Support the proposed modifications to section 6447.2(a) and 6449.1(a)(2).

Response: No response necessary.

Comment: Incorporate by reference comments raised in initial comment letter dated September 23, 2015.

Response: These comments are not relevant to the proposed modified text - no response necessary.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS

DPR has determined that the proposed regulatory action does not impose a mandate on local agencies or school districts requiring reimbursement by the State pursuant to Part 7 (commencing with section 17500) of Division 4 of the Government Code because the regulatory action does not constitute a “new program or higher level of service of an existing program” within the meaning of section 6 of Article XIII B of the California Constitution. DPR has also determined that no nondiscretionary costs or savings to local agencies or school districts will result from this regulatory action.

ALTERNATIVES DETERMINATION

The Director has determined that no alternative considered by DPR would be more effective in carrying out the purpose for which this regulation is proposed, or would be as effective and less burdensome to affected private persons or businesses than the adopted regulations, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of the law. This determination is supported by the *Director’s Decision Concerning Environmental Monitoring Branch’s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*, April 29, 2013; *Director’s Decision Concerning Environmental Monitoring Branch’s Request for Approval of Reduced Volatile Organic Compound Emissions Field Fumigation Method*, July 31, 2014; and *Director’s Decision Concerning TriCal, Inc.’s Request for Approval of Reduced Volatile Organic*

Compound Emissions Field Fumigation Method, July 31, 2014, which are contained in the rulemaking file as "Documents Relied Upon."

POSTING REQUIREMENT

Title 3, California Code of Regulations, section 6110, states in part that, "The public report shall be posted on the official bulletin boards of the Department, and of each commissioner's office, and in each District office of the DPR [Division of Pest Management, Environmental Protection and Worker Safety] for 45 days." DPR has posted its Initial Statement of Reasons and Public Report on its official bulletin board, which consists of the Department's Internet Home Page <<http://www.cdpr.ca.gov>>. In addition, copies were provided to the offices listed above for posting.